SmartWay 2011

Logistics Tool User Guide
2.0.10 BETA

Updated: September 20, 2011

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Part I: WELCOME

From its inception in 2001, SmartWay has worked closely with the freight industry to design an effective and comprehensive system that seamlessly aligns environmental, industry, and national security goals. SmartWay combines the environmental goals of reducing carbon, NOx and PM emissions with industry's efficiency and cost-saving goals, with the national security goal of reducing our dependence on foreign fuel. We thank all of the efforts from our partners to date, and look forward to working with you in the future.

The 2011 SmartWay Logistics Tool is part of a comprehensive suite of tools designed to help companies throughout the freight supply chain improve their performance. This system, known in development as SmartWay 2.0, has been relabeled by EPA as the SmartWay Fleet Logistics Efficiency and Emissions Tracking System, (SmartWay FLEET System.) These tools will provide a standardized way of Measuring, Assessing, Tracking and Targeting improvements in fuel efficiency, and carbon, NOx, and PM emissions.

SmartWay has proven in the past that this public/private partnership can help save companies money, reduce emissions, and save fuel. Moving forward, we hope to continue this partnership and to improve our capabilities to assist industry even more in the future.

Part II: INTRODUCTION

Welcome to the SmartWay Logistics Tool User Guide (United States version 2.0.10 BETA).

It is ***highly recommended*** you use this User Guide the first time you fill out the new tool. This User Guide provides step-by-step instructions on how to complete the tool, and provides explanations for why certain data are used. As a supplement to this manual, the tool contains a **Help** function that provides contextual assistance onscreen. A separate Logistics Tool Technical Manual is also available, providing a general overview of the SmartWay system, and detailing all data and calculations used within the tool.

SmartWay is currently working to develop a set of online video tutorials that will help walk users through the tool. These video tutorials should be available on the SmartWay website later in 2011. Additional user support and help aids are also planned for 2011.

Part III: GETTING STARTED

1. Software and Hardware Requirements

The tool is designed in Microsoft Excel forms and requires the following:

- A 2003 or later version of Microsoft Excel
- Excel security level set at Medium
- A PC running Windows XP or above is required. The tool does not currently support the Mac OS.
- The 2011 SmartWay Logistics Tool requires a minimum of 5 megabytes of free disk space. More disk space may be required based on the number of logistics fleets you define in your tool.
- The 2011SmartWay Logistics Tool uses Excel as its underlying technology. Your PC should have adequate memory (RAM) to run Office.
- The 2011 SmartWay Logistics Tool was designed for a monitor resolution of at least 1024 x 768.[1]

1.1. Partner Information

- Partner Information
  - Company Name, Address, City, State, ZIP, Country
  - Main Phone, Web site
- Primary, Executive, and Other Contact Information
  - Name, Title
  - Address, City, State, ZIP, Country
  - Phone/extension, e-mail

1.2. Logistics Fleet Characterization Information

- Fleet Names and Contacts
- Standard Carrier Alpha Codes (SCACs) and/or Motor Carrier numbers
- Fleet-level Operational Category (by percent of operation)
  - Truckload, Less-than-truckload, Dray, Package Delivery
- Fleet-level Body Type (by percent of equipment)
  - Dry Van, Reefer, Flatbed, Tanker, Intermodal Chassis, Specialized Hauler

1.3. Carrier Use Profile

- Identification information for carriers contracted in given year
  - Mode
  - Name

[1] The tool will also work at 800 x 600 resolution, but many of the screens will appear with scroll bars.

- Carrier utilization details
  - Total miles contracted
  - Total ton-miles contracted

2. Tool Organization

Figure 1 displays the structure of the tool screens. You should read the **Introduction** and **Partnership Agreement** screens and then proceed to the **Home** page. From the **Home** page, you can:

1) Enter your Partner name
2) Fill out company and contact information
3) Characterize your logistics fleets and create file(s)
4) Download carrier data file (future functionality)
5) Enter the required data for each logistics fleet
6) View reports and comments
7) Create final version to submit to EPA

At any stage of the process above, you can save the data you have entered by clicking the **Save Progress** button on the **Home** page.

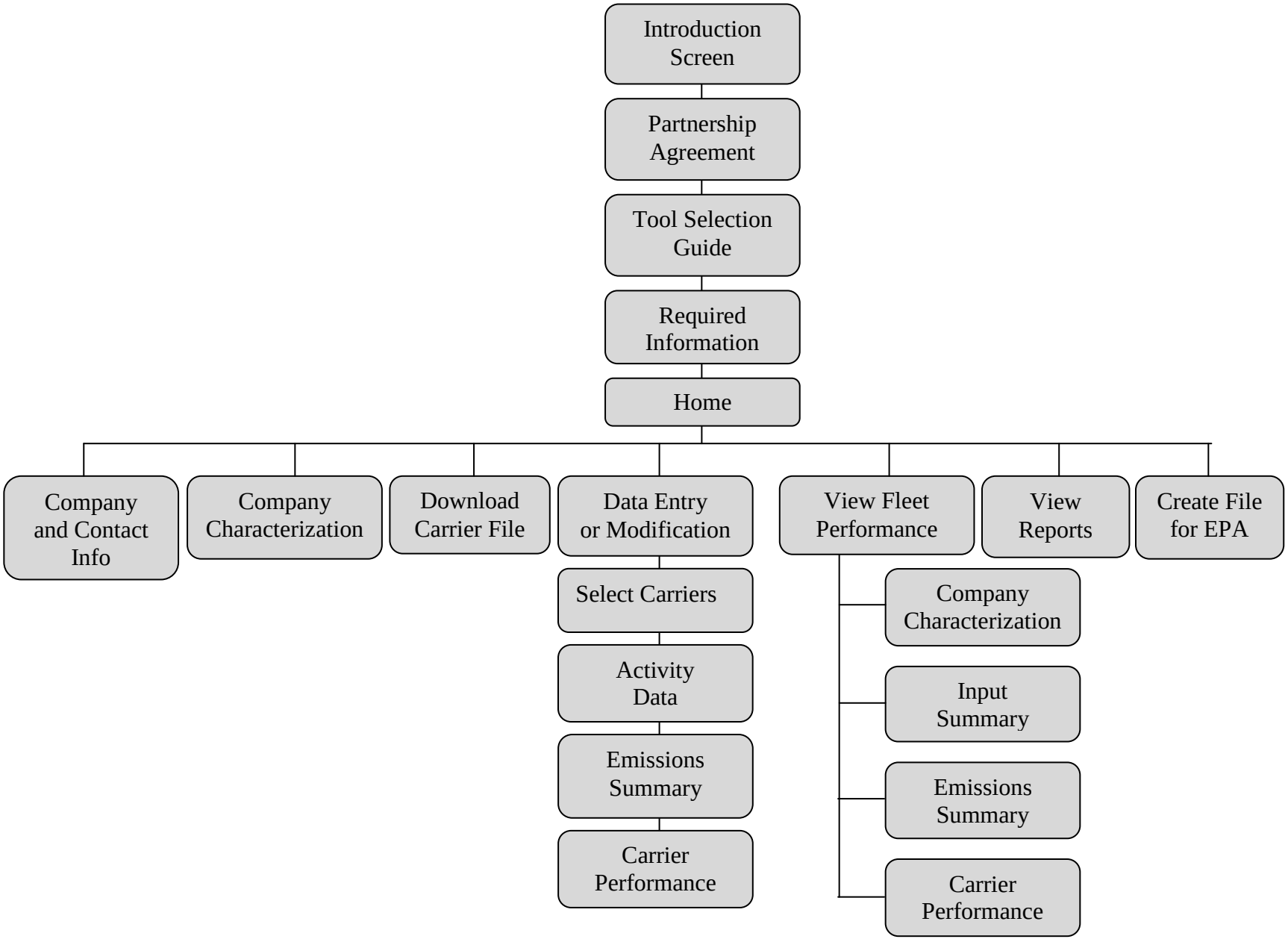

Figure 1. Logistics Tool Architecture

Part IV: RUNNING THE TOOL

1. Before you begin

The tool can be downloaded from the SmartWay Web site at:
<http://www.epa.gov/smartway/partnership/logistics.htm>

Security Settings for the SmartWay Tools

The following instructions should appear on your screen if you need to change your security settings before running the tool.

Excel 2003 Users

Before you begin, be sure to set your Excel security setting level to **Medium**. When using Excel 2003, on the menu bar, go to Tools → Macro →Security Level. When that window opens, click **Medium**. See **Figure 2** and **Figure 3** for details.

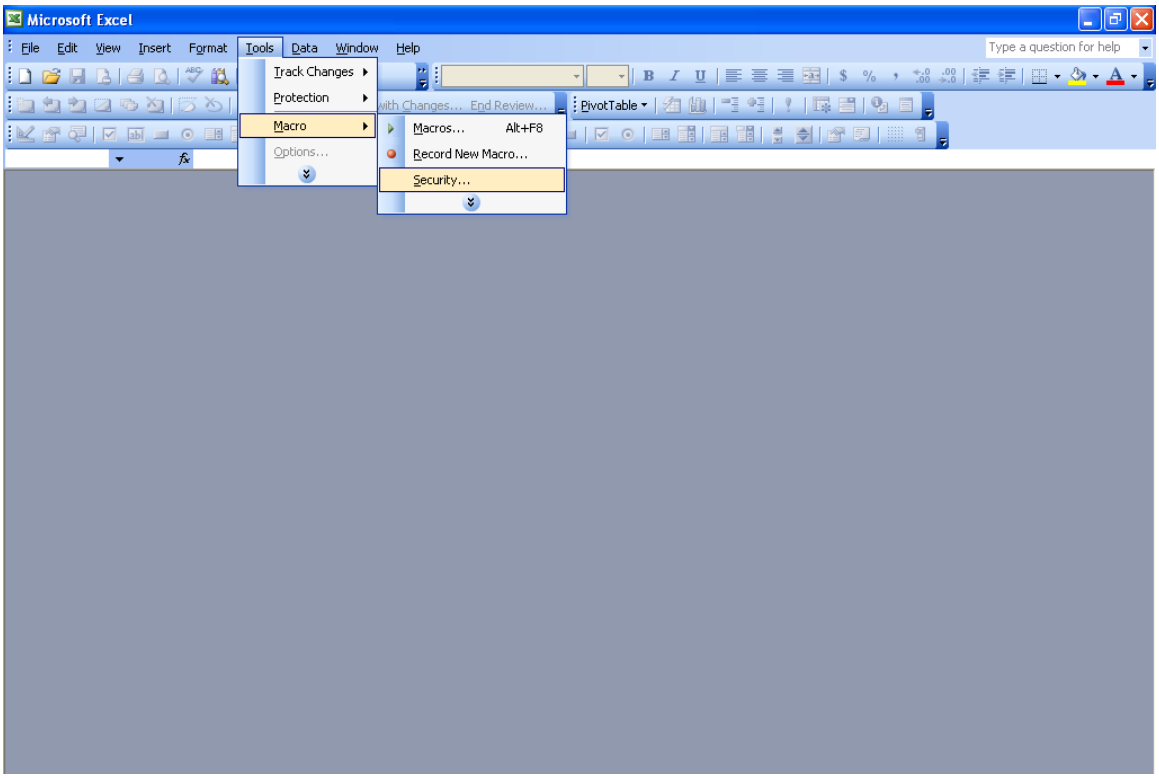

Figure 2. Macro Drop-Down Menu

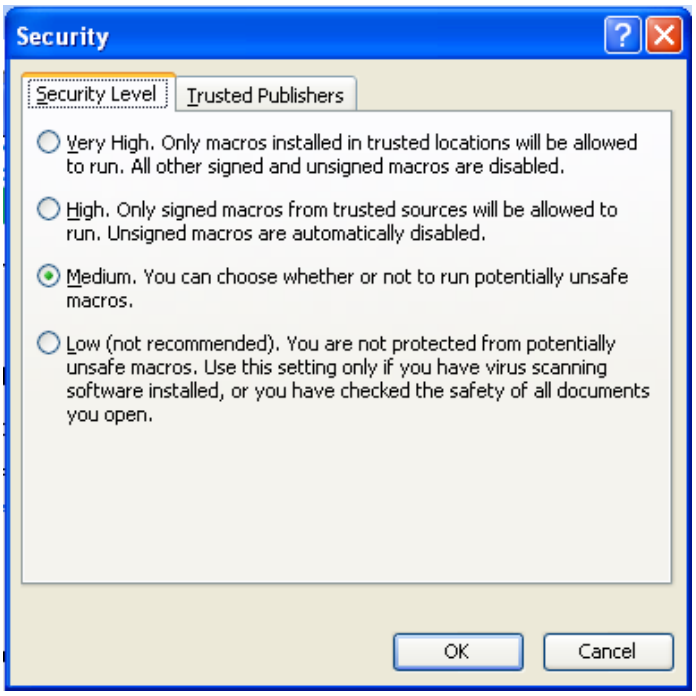

Figure 3. Security Dialog Box

To run the tool:

1) Save the tool to your computer.
2) Double-click on the file to open the tool. You will see a security warning box appear (**Figure 4**).

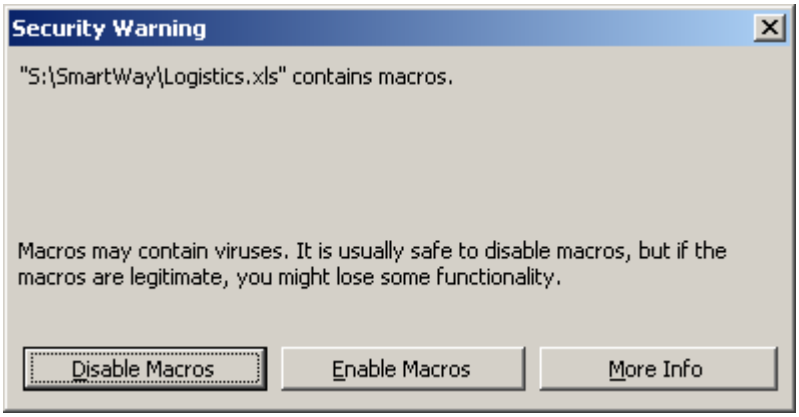

Figure 4. Security Warning Box

3) Click on the **Enable Macros** button in the security warning box. The following screen (**Figure 5**) should appear:

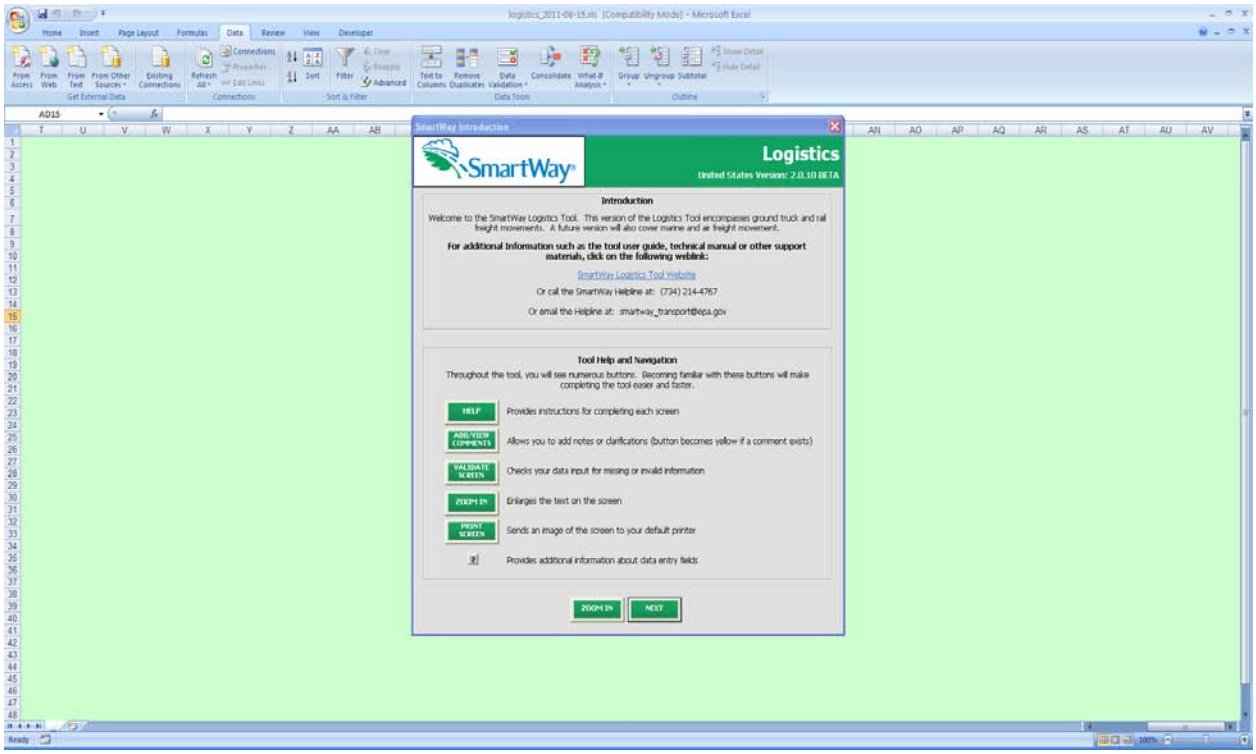

Figure 5. Logistics Tool Introduction Screen

The part of the tool that you fill out resides in the gray forms. The Excel workbook that remains in the background – and which normally appears as a blue screen as in **Figure 5** – is where all of the data you enter is actually stored. However, for the purpose of your data entry, please disregard the background workbook.

Security Settings for Excel 2007 and 2010 Users

Before you begin, be sure that your Excel security setting is ***not*** set to “Disable all macros without notification.” If a button labeled "Options…" or "Enable Content" appears in the Excel menu bar (following the Security Warning icon), click the button. For Excel 2007, the button will be labeled "Options..." and clicking it will launch the Microsoft Office Security Options dialog box (**Figure 6**). Within the dialog box, choose “Enable this content” and click **OK**.

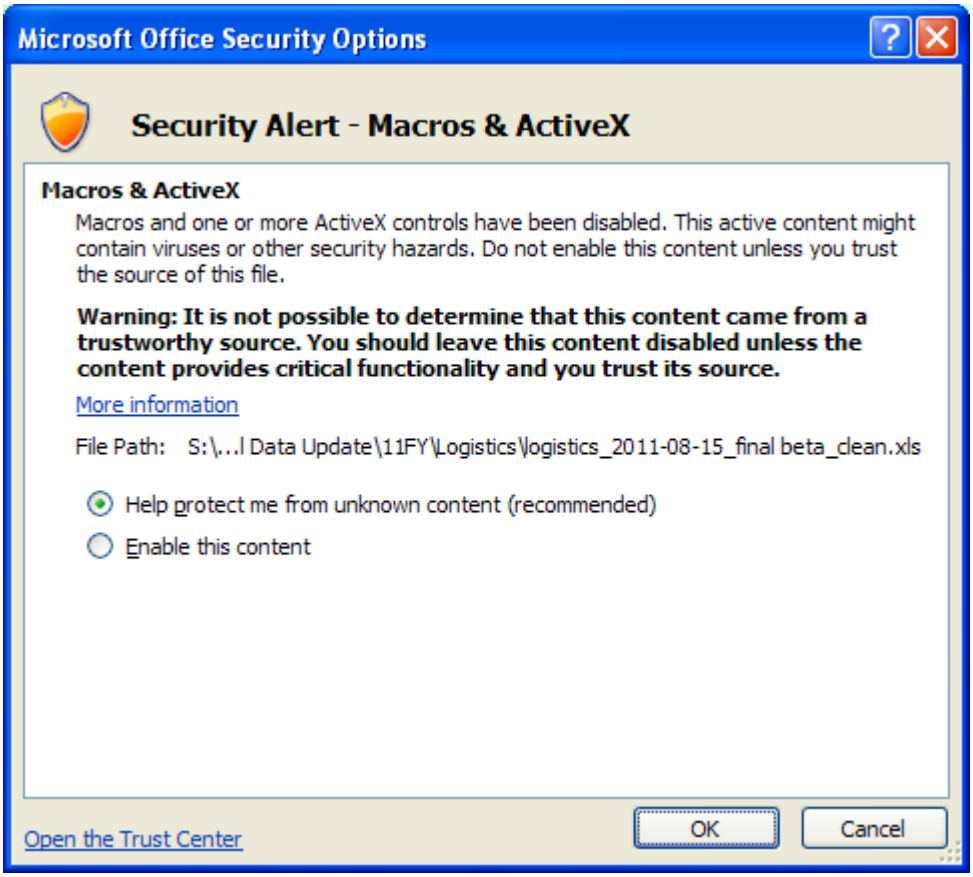

Figure 6. Security Options Dialogue Box

For Excel 2010, the button on the Excel menu bar will be labeled "Enable Content" and clicking it will bypass the dialog box shown in **Figure 6**.

If the "Options..." or "Enable Content" button mentioned above does not appear, use the instructions below. (**NOTE**: If you do not have a round Office button (as shown in **Figure 7** below), you are probably using an earlier version of Excel, in which case you need to follow the instructions for Excel 2003 users above.)

First click the Office button (in the top left corner of the screen) and then click the **Excel Options** button in the bottom right corner of the pull-down menu (**Figure 7**):

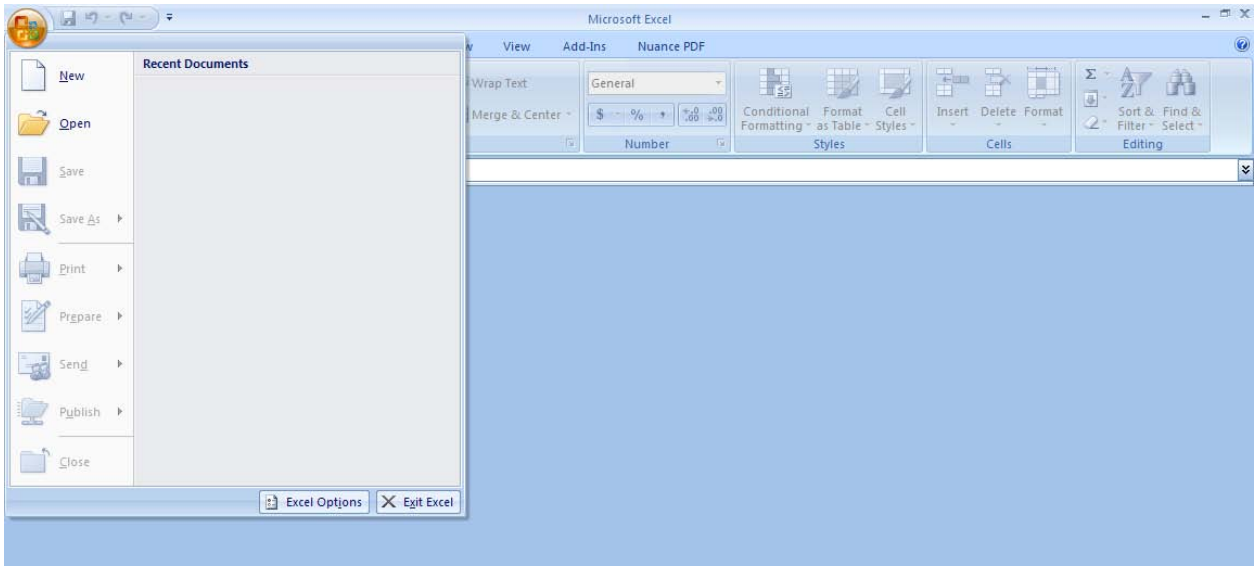

Figure 7. Excel Options Drop-Down Menu

Next, on the Excel Options screen, click on **Trust Center** in the left navigation bar (**Figure 8**):

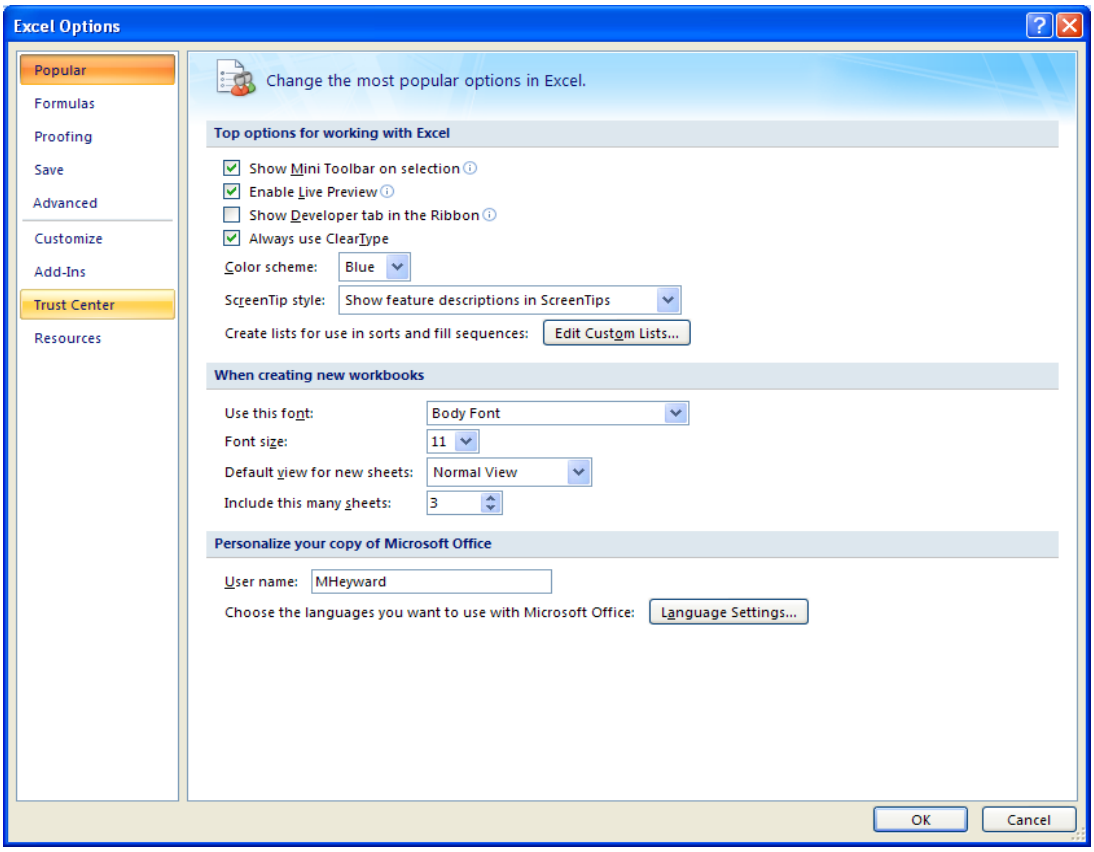

Figure 8. Excel Trust Center Screen

When the Trust Center options display, click on **Trust Center Settings** in the bottom right portion of the screen (**Figure 9**):

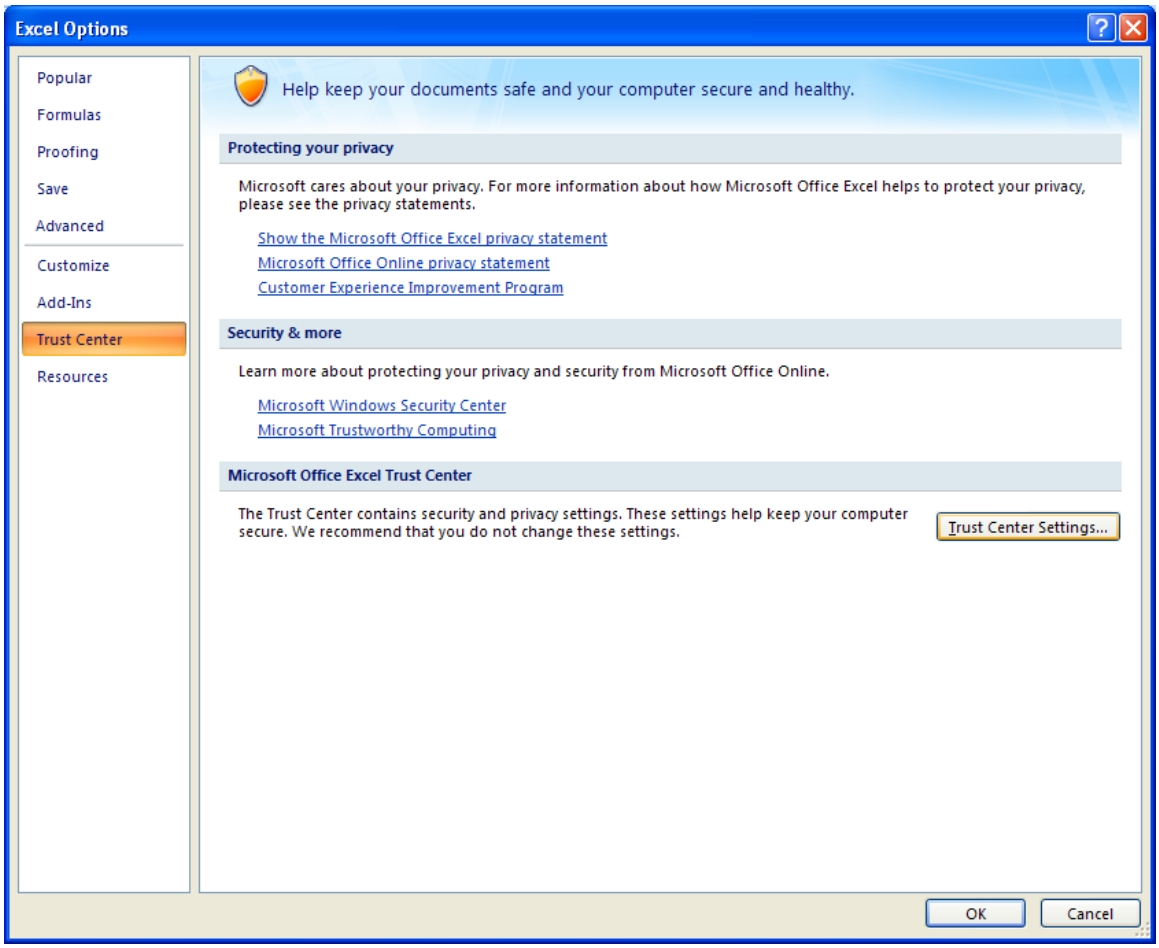

Figure 9. Trust Center Settings Screen

Choose the setting “Disable all macros with notification” (**Figure 10**) and click **OK**.

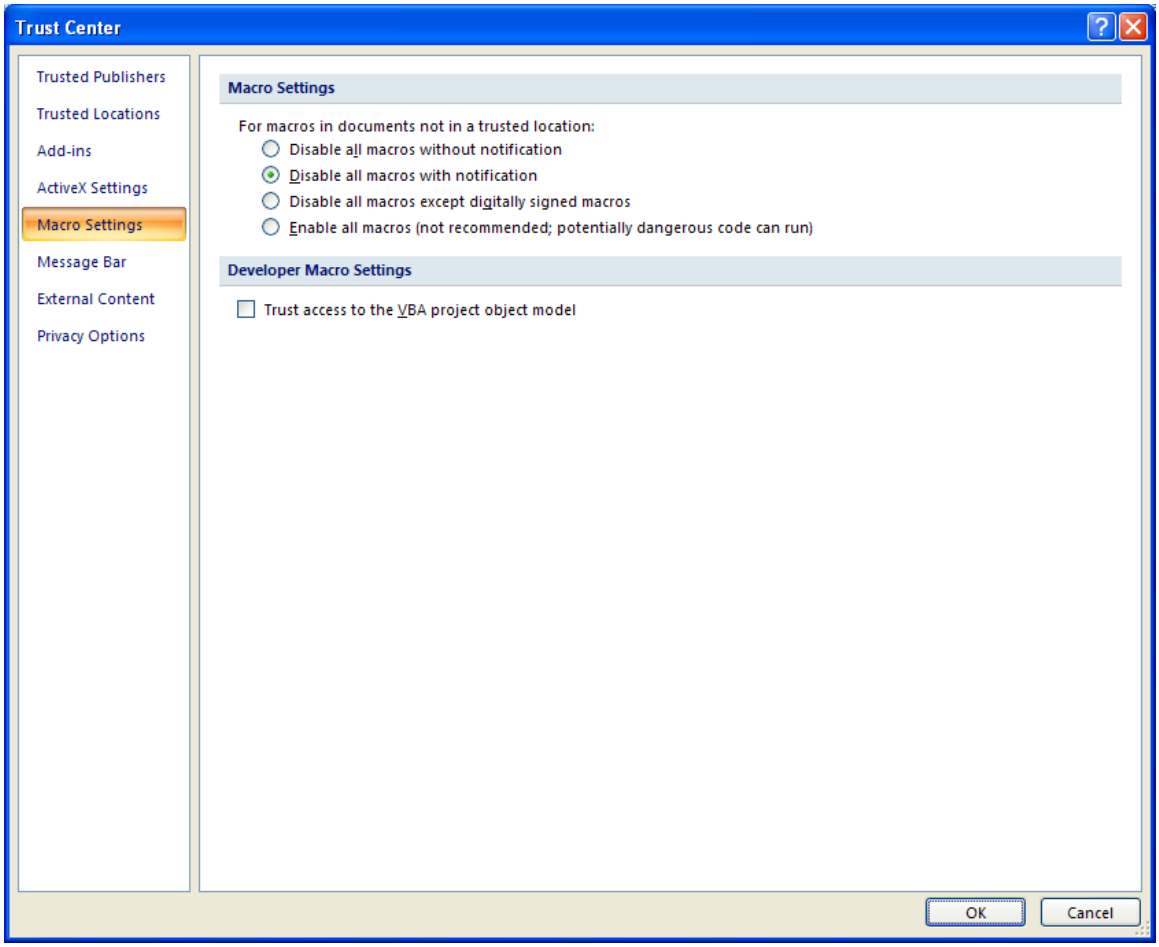

Figure 10. Macro Settings Screen

To run the tool:

1) Save it to your computer.
2) Open the file, and click the Options or Enable Content button as described above.
3) In the Microsoft Office Security Options dialog box (**Figure 6**), choose “Enable this content” and click **OK**.

If the tool does not open at this point, please review the Software and Hardware Requirements on Page 3 of this guide.

2. SmartWay Introduction

Figure 11. SmartWay Introduction Screen

The SmartWay **Introduction** screen is the first window that appears when the tool is opened in Excel, as shown in **Figure 11**. This screen contains a link to the SmartWay Web site where you can view and download additional information, as well as alternative contact information including the SmartWay Helpline phone and email address. A brief summary is also provided regarding tools you can use to help navigate and use the tool.

General SmartWay information and technical documentation: http://www.epa.gov/smartway/partnership/logistics.htm

Note: The name of the screen appears at the top left-hand corner of the tool, in white font on the blue window bar.

To proceed to the **SmartWay Partner Agreement** screen (**Figure 12**), click **NEXT**.

2.1 SmartWay Partner Agreement and Guidance Screens

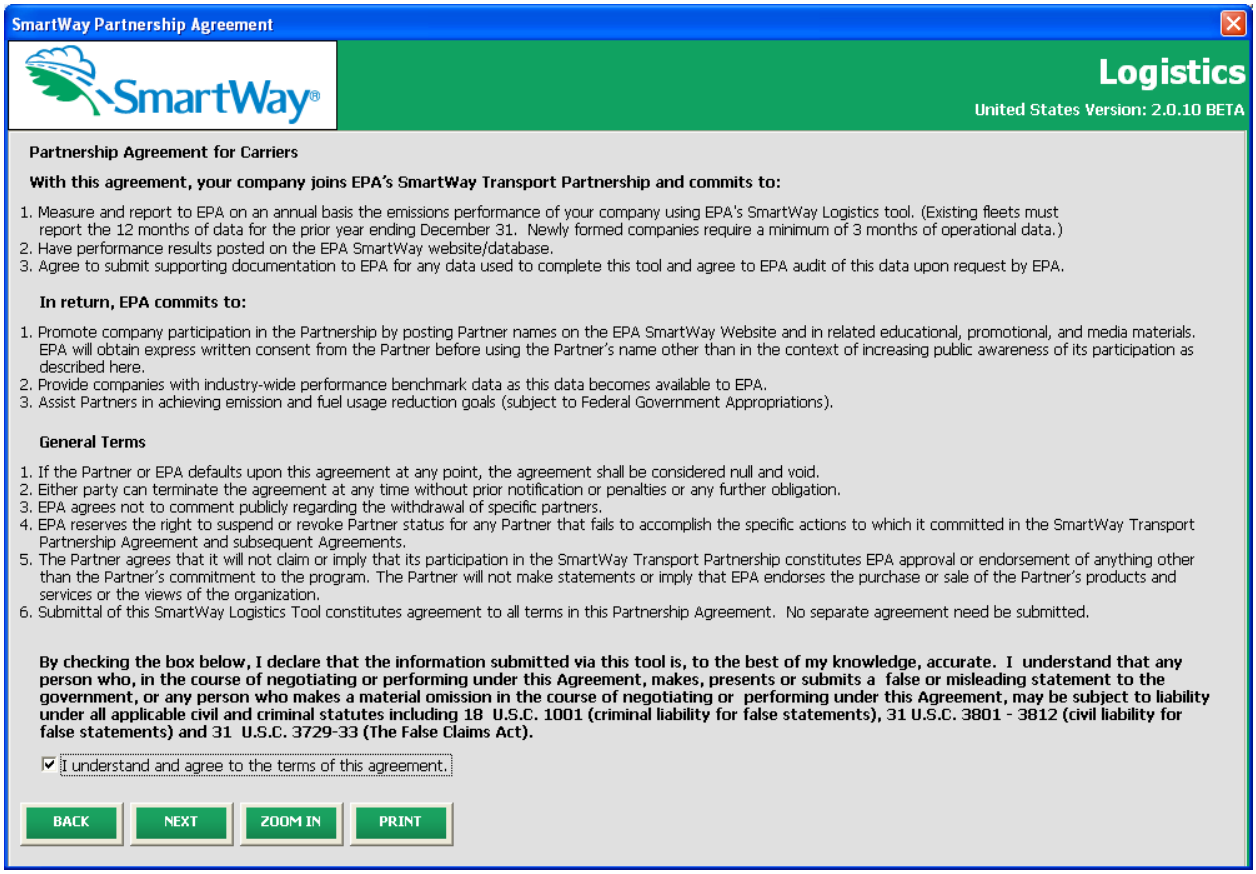

Figure 12. SmartWay Partner Agreement

After clicking the **NEXT** button on the **Introduction** screen, the **SmartWay Partner Agreement** should appear. You must agree to this language to join the SmartWay Transport Partnership. Separate signed hard-copy versions are no longer required. Submitting a SmartWay 2011 Logistics Tool to EPA constitutes agreement to all terms in the Partnership Agreement. Because tools are due on an annual basis, the Partnership Agreement will be renewed automatically each year. Partner listings on the EPA Web site and in the SmartWay global partner database will be based on annual partnership and tool submission. If an agreement/tool is not submitted per SmartWay requirements, the partner will automatically be removed from the list.

> Historical Note: In the past, SmartWay supported a lengthy warning process for partners that were delinquent submitting their partnership materials; however, due to the large number of partners currently joining and submitting materials to SmartWay, this can no longer be supported.

To move to the next screen from the **SmartWay Partner Agreement** screen, first check the box indicating "I understand and agree to the terms of this agreement" and click the

NEXT button. The next screen provides guidance for selecting the correct SmartWay carrier tool. SmartWay has a number of tools that may be appropriate for trucking companies, including the Truck Carrier, Logistics, and Multi-modal tools (see **Figure 13**). Each of these tools is tailored to specific types of companies. Partners may need to complete different tools depending on the transport modes employed (e.g. truck only or intermodal) and/or the amount of business contracted to other companies. Carefully review the descriptions of the different tools to determine which one(s) are right for you.

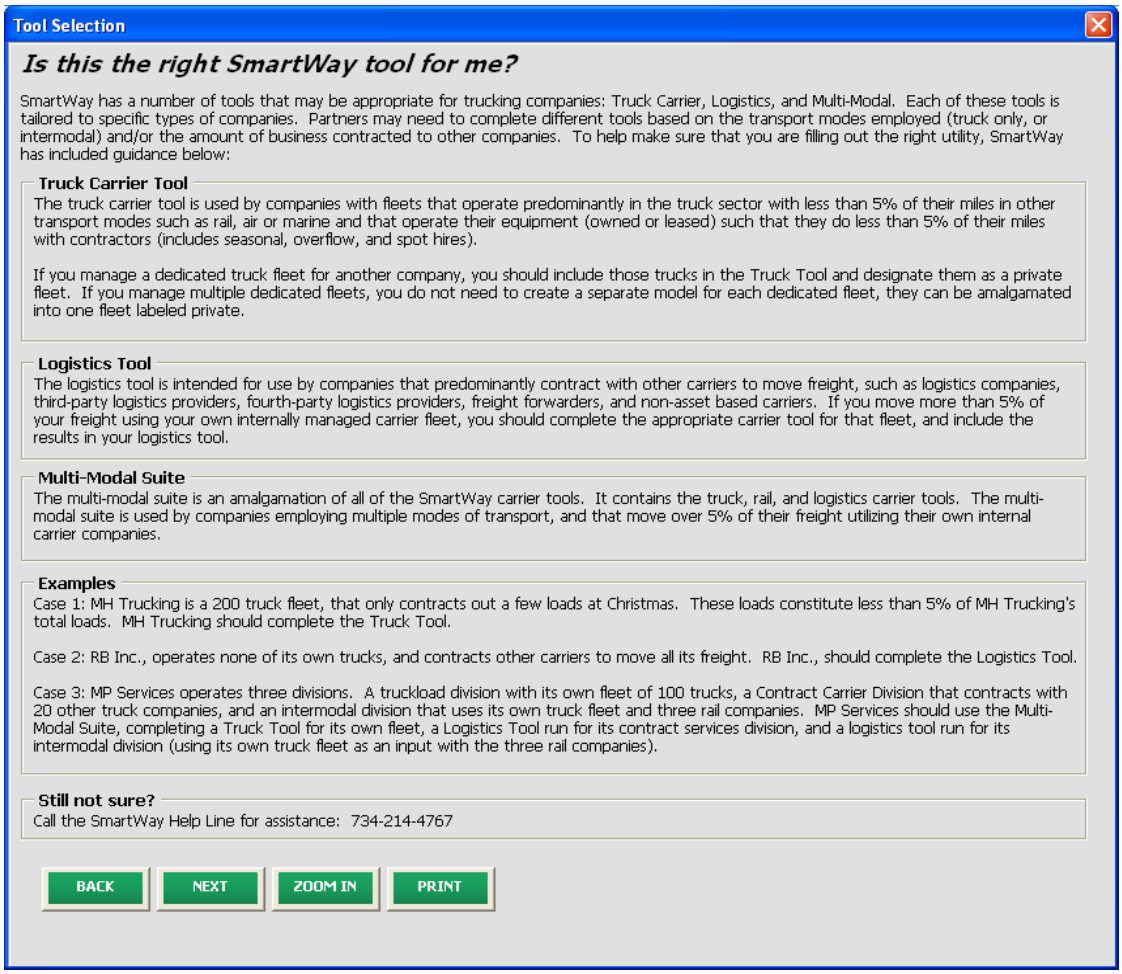

Figure 13. Carrier Tool Selection Guidance

Click the **NEXT** button to view the information needed to complete the Logistics Tool, as listed in Sections 1.1 through 1.3 above (**Figure 14**). You may click the **PRINT** button at the bottom of the page in order to retain a hardcopy for reference as you complete the rest of the tool.

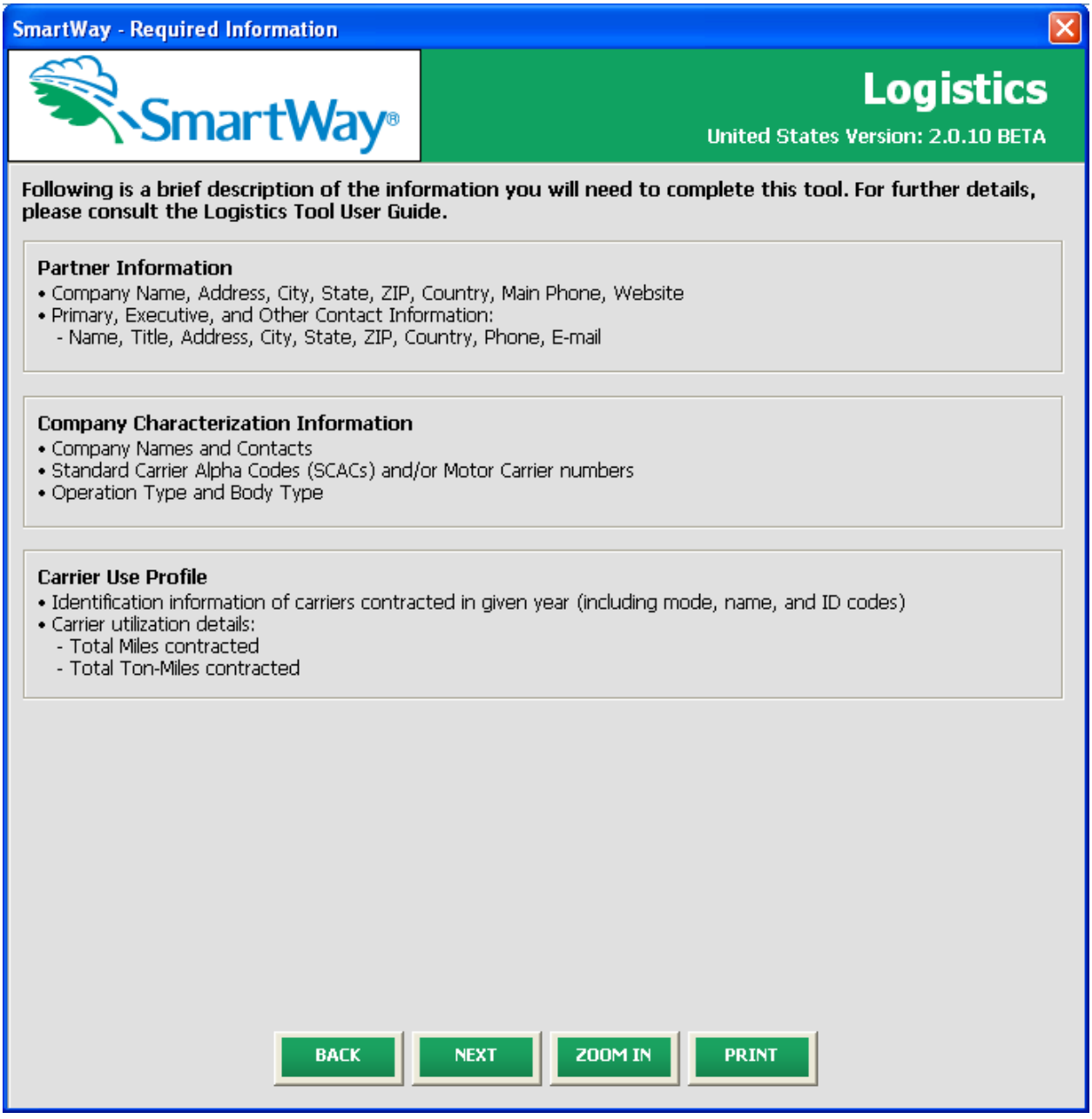

Figure 14. Required Information Summary

After review, click the **NEXT** button.

3. Home Screen

Figure 15. Main Tool Navigation or "Home" Screen

Figure 15 shows the main tool navigation screen, or **Home** screen, with the Reporting Year clearly indicated at the upper right. From here you can access to all components of the tool. To move to a specific tool screen, click the corresponding **blue link**, or simply

navigate using the **BACK** and **NEXT** buttons where present. Throughout the data input process, you will be able to click the **HELP** button if you need additional guidance. You will also notice small gray icons with question marks [**?**] displayed throughout the tool. When clicked, these icons provide additional information about specific items located on the screen. You may also click the **PRINT** button on any screen to send an image of your current screen to your default printer.

There are seven main data entry categories specified on the **Home** screen. Enter the requested information or click on the link provided to proceed to the corresponding screen. These items are to be completed in order, and comprise all the steps needed to complete your SmartWay Logistics Tool.

1. **Partner Name**: Enter the name of your organization, exactly as it should appear on the Partner Listing of the SmartWay Web site.
2. **Company and Contact Information**: This screen will ask for general company contact information, a primary SmartWay point of contact, and an executive-level contact. Additional contacts may also be included if needed.
3. **Logistics Fleet Characterization**: On this screen, you will provide basic information about the logistics fleets you operate. Provide the name of the logistics fleets you operate, exactly as they should appear on the SmartWay Web site. Once all inputs are specified, the software will automatically generate separate data files to be completed for each fleet.
4. **Download Carrier Data File**: Click on this link to download the latest performance data for SmartWay carriers, including their gram per mile and gram per ton-mile emission rates. The file will then be downloaded from the SmartWay Web site to your computer. If you need to revise the information in your tool at a later time, make sure to download the latest file to include any recent updates to the carrier data. The date of the carrier file being used will be automatically displayed to the right of the blue link.
5. **Select Logistics Fleet for Data Entry**: You will input data pertaining to the carriers included in your logistics fleets in this section. Activity information entered here should include a full annual (12 months) worth of data. If you are a new company and do not have a full year of operational data, please collect a minimum of three months worth of data for input into the SmartWay Tool. Next year you will be required to submit a full year of data.
6. **View Performance Data**: This screen gives you multiple options for viewing your performance data and can generate multiple reports for you. In addition, another link, **Show Report of All Comments**, allows you to review any notes and comments made during the compilation of the different data inputs throughout the tool. These comments can provide a useful reference for documenting data sources and assumptions, as well as for preparation of subsequent year submittals. You can also use this link to view questions and comments from your Partner Account Manager after they receive and return your data files.
7. **Create File to Send to EPA:** Send the data file as an Excel attachment in an e-mail to your Partner Account Manager (PAM). Pressing the **OK** button does not automatically submit the data file to EPA – follow the instructions on the popup

screens carefully to complete this process. In the future this screen will automatically send your SmartWay submission to the SmartWay team via e-mail.

NOTE: In order to save data entered into the tool before exiting, you should click the SAVE PROGRESS button on the Home screen. Although you will also be prompted to save your data after clicking EXIT, we recommend saving your data entry intermittently, especially if you are entering information for large numbers of carriers and/or logistics fleets.

3.1. Company and Contact Information

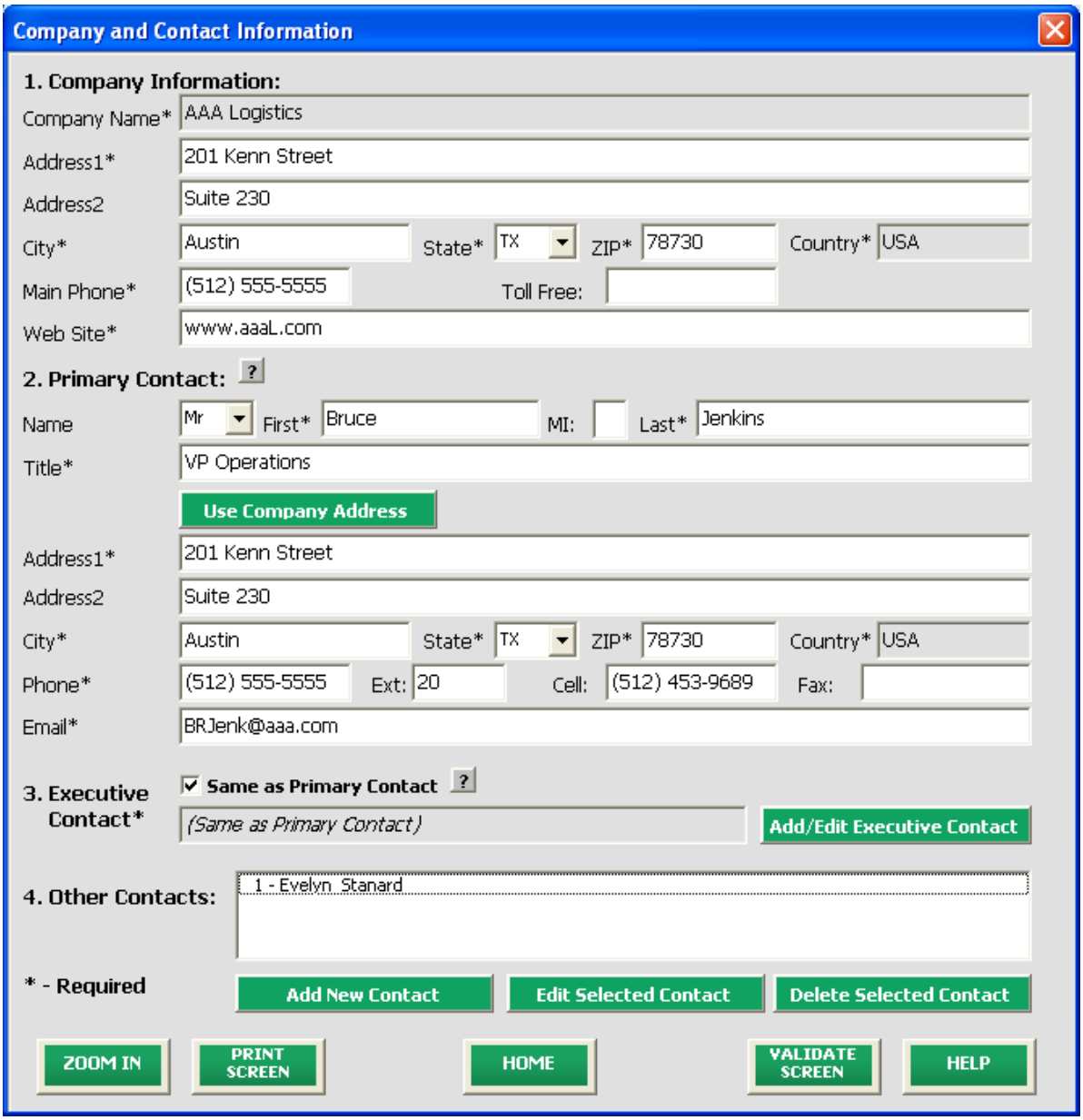

Figure 16. Company and Contact Information

For this form, you will fill out the following information:

- Company Information
- Primary Contact information[2]
- Executive Contact (Vice President or higher)
- Other Contact information

Each field marked with an asterisk must be filled out. You will not be able to submit the tool to SmartWay without this information. Simply fill out the required data for the Company and Primary Contact fields. To fill out the Executive Contact Information, click the **Add/Edit Executive Contact** button to the right and enter the required data. If the Primary Contact and Executive Contact are one in the same, simply check the **Same as Primary Contact** box to auto-populate the Executive Contact information.

To add a contact to the **Other Contacts** box, click the **Add New Contact** button. A new contact field will appear, labeled **Other Contact Information** (not pictured). Fill this out and click **OK** when done. You can add more names to the **Other Contacts** box by repeating this process. If you wish to edit an existing contact's information, highlight the name you wish to edit and then click the **Edit Selected Contact** button. You can remove an existing contact by highlighting the contact and then clicking **Delete Selected Contact**.

Sometimes companies with multiple business units will gather information from different sources within the company. You might find it useful to have this information stored within the tool.

To make sure you have filled out all required information, you can click the **Validate Screen** button. This will check to see if all necessary information has been submitted, and if phone numbers and zip codes have been input properly. If any information is missing, a dialogue box will appear informing you what additional information is required.

If you encounter validation errors or any problems involving shipper tool operation that you cannot resolve, please take a screen shot of the form in question (press <Alt – Prt Scr>) and paste the image into a documents) and e-mail your Partner Account Manager for assistance.

After completing the form, click **HOME** to return to the **Home** screen (**Figure 14**). On the **Home** screen, click **Download Latest Carrier Data File** to obtain the current performance data for your carriers. Upon clicking the link, the tool will attempt to access the latest version of the carrier data file maintained on the SmartWay website. ***Make***

[2] The Primary Contact is the person responsible for coordinating the assembly of information to complete/update the tool; completing and updating the tool itself; maintaining direct communication with SmartWay; and keeping interested parties within the company apprised of relevant developments with SmartWay.

sure you have an active Internet connection before attempting to download the carrier file.

After establishing an Internet connection the tool will download the carrier file (SmartWayCarrierData.xls) to the same folder as the tool, replacing any prior version of the file if one already exists on your computer. The tool will then use this new file in order to access the required carrier-specific performance data. In addition, the first time you go to the **Select Carrier(s)** screen after downloading a new carrier data file, the system will check the file date and update the data for any carriers that had been selected previously.

Next, on the **Home** screen, click **Logistics Fleet Characterization** to begin benchmarking your fleets.

3.2. Characterize your Logistics Fleets

3.2.1. Fleet Characterization: Identify Fleets

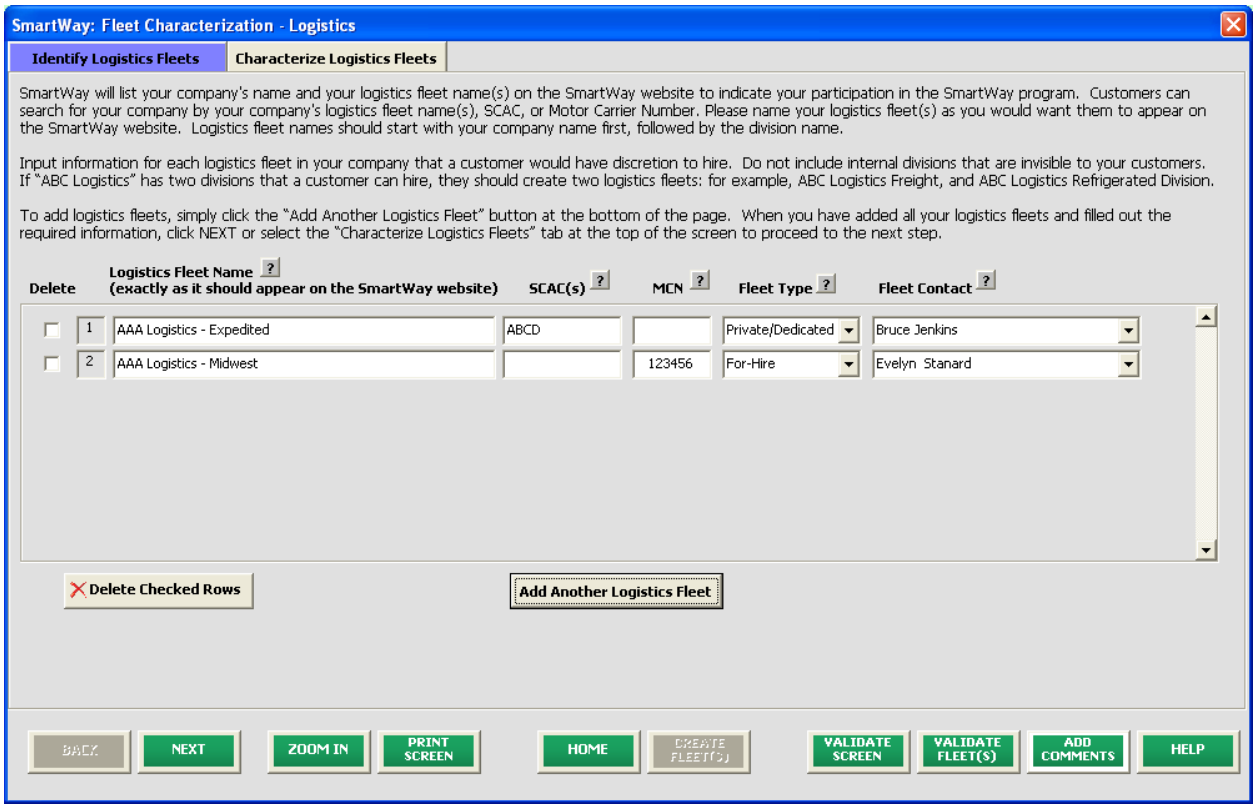

Figure 17. Fleet Characterization– Identify Logistics Fleets Screen

This screen allows you to define your logistics fleet(s). In the Logistics Tool, a fleet is defined as any business unit that a customer has discretion to hire. For example, if your customers can hire your expedited fleet separately from your Midwest fleet, you will need to enter each as a separate fleet.

To familiarize yourself with the **Fleet Characterization** screens (see **Figure 17**), browse the two tabs at the top of the screen labeled **Identify Logistics Fleets** and **Characterize Logistics Fleets**.

Think about your information ahead of time! *How do your customers hire your fleet(s)? How many divisions do you have within your company? How are your divisions/customer choices identified? Are they identified by specific SCACs or Motor Carrier numbers? SmartWay highly recommends developing your list of logistics fleets offline using a company organization chart or perhaps a customer interface webpage. The best strategy is to have a clear idea of how to define your fleets before filling out the tool.*

When you are ready to begin data entry, make sure you are on the **Identify Logistics Fleets** screen.

First, enter the Logistics Fleet name, with your company name first followed by your fleet name, exactly as you would like it displayed on the SmartWay website. If your fleet has a SCAC and/or a Motor Carrier Number, please input that information as well. While it is not required to enter SCAC or MCN information for each fleet, it will help shippers searching by those parameters in the SmartWay database to easily find your fleet for inclusion in their Shipper Tool.

If the logistics fleet has multiple SCACs, these may be entered in the same field, separated by a comma.

Next, specify your fleet type. For private company operations or dedicated contract service, enter "Private/Dedicated." Otherwise select "For-Hire."

Finally, enter your fleet contact(s). Use the drop-down menu to display the list of contacts you entered in the **Company and Contacts** screen (Section 3.1), and select one. If there is a contact for the fleet that is not already listed in the **Company and Contacts** screen, you will need to go back to that screen to add the contact information.

If you need to add a row for an additional logistics fleet, click the **Add Another Logistics Fleet** button at the bottom center of the screen and an additional row will appear. If necessary, use the vertical scroll bar to view all your fleets. If you need to delete a fleet, click the check box next to the fleet and then click the **Delete Checked Rows** button at the bottom left of the screen.

Please note the **ADD/VIEW COMMENTS** button located at the bottom of the screen. This allows you to enter notes about the collection process, your assumptions and methods, data, or other information. This record could prove useful when you or someone else fills out the tool next year. If comments have been added for a particular screen, the **ADD/VIEW COMMENTS** button will be highlighted in yellow on your screen and will now read **VIEW/EDIT COMMENTS**.

A **HELP** button is also available should you need assistance. You will also notice small gray icons with question marks [?] displayed throughout the tool. When clicked, these icons provide additional information about specific items located on the screen.

To proceed, click the **Characterize Logistics Fleets** tab at the top of the screen, or simply click the **NEXT** button at the bottom of the screen. Before proceeding to the next screen however, a popup screen will appear asking you to verify that the name(s) of your fleet(s) are correct – see **Figure 18**. *Please verify that the logistics fleet name(s) are exactly as you want them to appear on the SmartWay website, indicating your participation in the SmartWay program*. Click **OK** to proceed to the next screen, or **Cancel** to revise your fleet name(s).

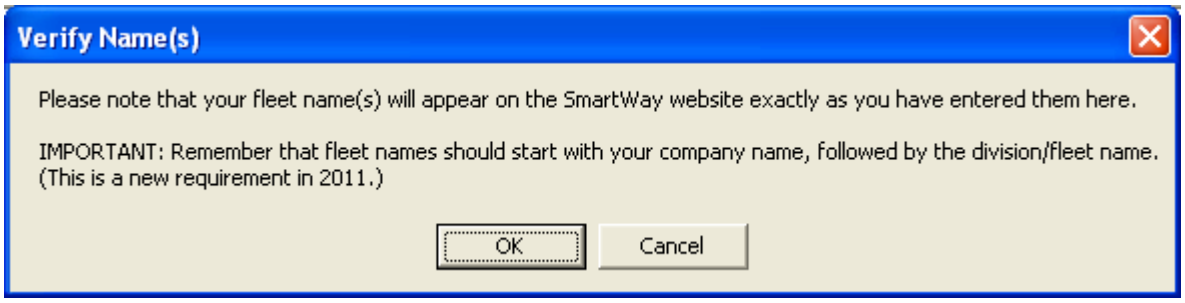

Figure 18. Logistics Fleet Name Verification Message

3.2.2. Fleet Characterization: Characterize Fleets

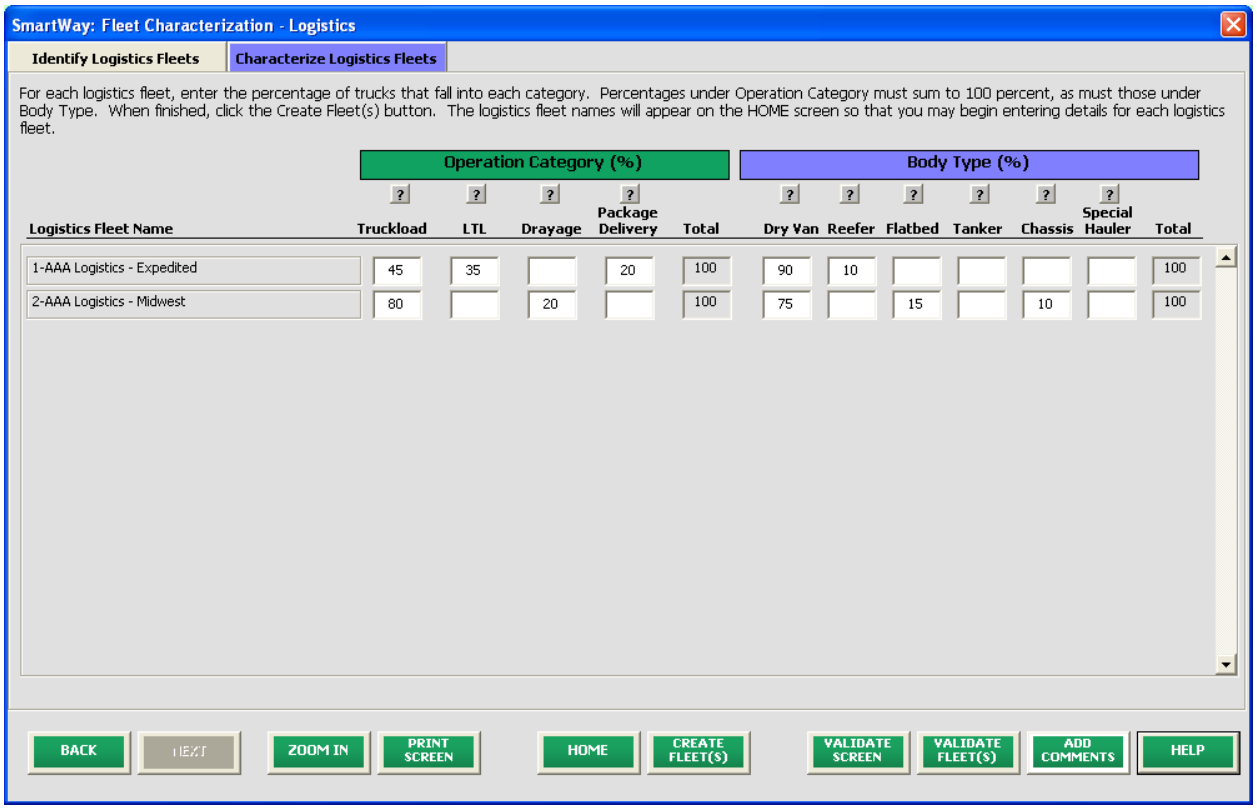

Figure 19. Fleet Characterization– Characterize Logistics Fleets Screen

After you have filled out the **Identify Logistics Fleets** screen, you will see all of your fleets listed on the **Characterize Logistics Fleets** screen. This screen allows you to enter details regarding your fleets.

For each fleet fill out the **Operation Category (%)** information by indicating the percentage of operation on a mileage basis. Operational categories include:

- Truckload (TL) - Truckload shipping is the movement of large amounts of homogeneous cargo, generally the amount necessary to fill an entire semi-trailer or intermodal container. Truckload carriers generally contract an entire trailer-load to a single customer;
- Less-than-truckload (LTL) - Less than truckload operations collect freight from various shippers and consolidate that freight onto enclosed trailers for linehaul to the delivering terminal or to a hub terminal where the freight will be further sorted and consolidated for additional linehauls;
- Drayage - Predominantly associated with port, or rail head connections where freight is picked up, and moved to another transfer facility or transport mode terminal. Often these moves are short in nature, but can be longer depending on specific situations:
- Package delivery (PD) - Covers operations characterized by residential or business package delivery/pickup consisting primarily of single or small groups of packages. It does not include larger scale pickup delivery operations that are more properly characterized as Less Than Truckload operations. Common examples of this type of operation are the brown UPS and white FedEx delivery vehicles.

Enter the percent of each operational type based on approximate mileage. This percentage calculation does not need to be exact but should be reasonably reflective of your fleet. Again, define your logistics fleets based on the ability of your customers to choose them. If customers can choose to hire your TL fleet, or your LTL fleet, or your dray fleet, then create each as a separate fleet. The percentages for each fleet must sum to 100%.

Next, fill out the **Body Type** fields, indicating the percentage by body type for each fleet. Body Type categories include:

- Dry van
- Refrigerated (Reefer)
- Flatbed
- Tanker
- Intermodal chassis containers (pooled and owned)
- Special hauler (e.g., Heavy Haul, Auto Carriers, Bulk Carriers, Household Moving, Hopper, Livestock, Garbage, Utility, and other specialized carriers)

The percentages specified can be approximate, based on vehicle populations. Again, define your fleets based on the ability of your customers to choose them. If customers can choose to hire your dry van fleet, or your reefer fleet, or your flatbed fleet, then create each as a separate fleet. The percentages for each fleet must sum to 100%.

Once you are sure your information is input correctly, you may click the **CREATE FLEET(S)** button at the bottom of the page. A message will then appear indicating that you have successfully created your logistics fleet data entry forms (blank data entry

pages) for the reporting year. Click **OK** to proceed. You will then be returned to the **Home** screen.

If, at a point later in the data entry process, you realize that you need to add a new fleet or delete an existing fleet, you can return to the **Identify Logistics Fleets** screen. To add a new fleet, follow all of the instructions on the screen regarding defining your fleets, including clicking the **CREATE FLEET(S)** button. When you click this button, the system will create blank data entry forms only for the new fleet(s) you have added; the existing fleets will not be affected.

If you need to delete an existing fleet, simply check the box next to the fleet and then click the **Delete Checked Rows** button. Note that, if you have already generated data entry forms for the fleet you are deleting, the system will prompt you to confirm the deletion.

As on the other screens there is a **HELP** button as well as an **ADD/VIEW COMMENTS** button. Clicking **HOME** will take you back to the **Home** screen (see **Figure 20**).

Figure 20. Home Screen - After Defining Logistics Fleets

On the **Home** screen, you will now see all the logistics fleets you created listed in the window below item # 5: **Select Logistics Fleet for Data Entry**. There will be a status message after each fleet name. This indicates whether or not your fleet data entry is complete. The following information may appear beside a fleet name:

- Not Checked: This indicates that data has not been entered and that validation of the data for error checking has not been conducted.
- Incomplete: This indicates that some data is still missing and/or inconsistent.
- Complete: This indicates that all data requirements have been met and validation has occurred.

To add data to a particular logistics fleet, highlight the name and then click **View or change the selected logistics fleet**, or simply double-click on the fleet name. You will then proceed to the data entry section of the tool (**Select Carrier(s)** screen), where you will enter specific data related to the carriers included in your fleet.

3.3. Data Entry and Data Results

3.3.1. Data Entry: Select Carrier(s) Screen

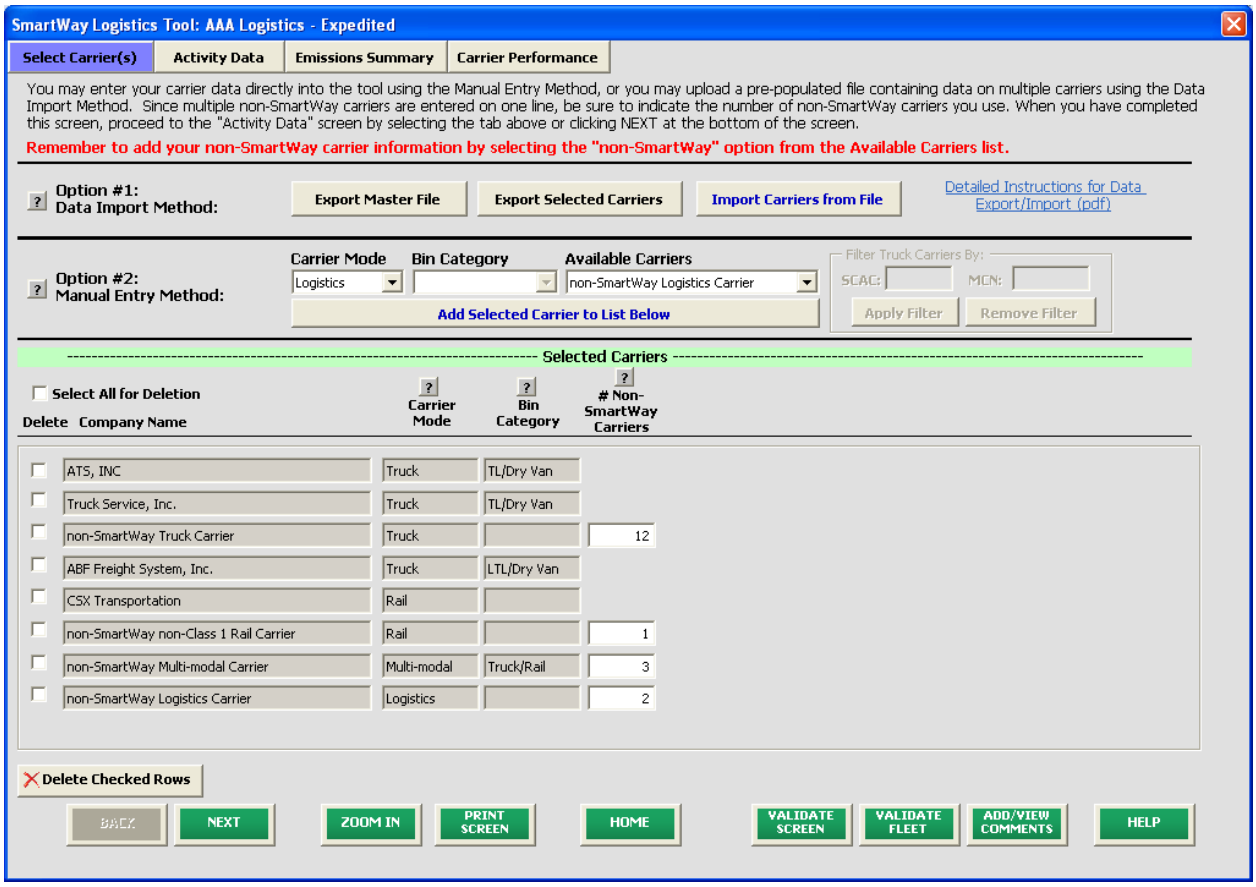

Figure 21. Data Entry– Select Carrier(s) Screen

The **Select Carrier(s)** screen allows you to input specific data about each carrier that you hire by referencing the carrier data file downloaded to your computer from the SmartWay website.

Two options are available for specifying your carriers. If you have a large number of carriers (e.g., as a large 3PL), you may wish to develop your carrier details off-line and upload your data in a single file. Alternatively, if your logistics fleet has a limited number of carriers, you may choose to specify your carriers one at a time using the **Manual Entry** method. These two methods are described in detail below.

Click the blue link at the upper right of the screen, Detailed Instructions for Data Export/Import, to view and/or print these instructions – see http://www.epa.gov/smartway/documents/partnership/logistics/partnership/export-import-guide.pdf

Data Import Method

The purpose of the Logistics Tool's **Data Import** function is to allow larger logistics companies to extract and combine data from their in-house computer systems, and to then import this data directly into the Logistics Tool, alleviating the need to key in this data through the tool input forms.

The carrier data that you collect and prepare needs to be stored in a Comma Separated Values (CSV) file. In order for the CSV file to be properly read, it must be saved with the proper format. Although CSV files can be viewed and updated using a variety of different PC applications, SmartWay recommends that you use Microsoft Excel. Excel has standard support for CSV files, in that it can easily read and write this type of file. **Note that you MUST always save your import file as a CSV file.** If you accidently save your file as an Excel workbook, you can easily change the format back to a CSV file by using the **Save As** function in Excel.

The recommended steps for preparing your **Data Import** CSV file are as follows. *Please note that EPA does not have the resources or technical expertise to assist you in creating and importing this file. You should rely on your own in-house IT/MIS computer staff.*

Step 1: Open the Logistics Tool and perform these three steps listed on the **Home** screen.

a) Enter Company and Contact Information
b) Define Your Logistics Fleet(s)
c) Download Latest Carrier Data File

After performing these first three steps, select a logistics fleet from step 5 on the **Home** screen. This will display the **Data Entry** forms for the fleet you selected.

Step 2: Select your carriers.

When the Logistics Tool imports your CSV file, it merges your carrier information with emission factors from EPA's SmartWay Database. Carrier data is merged together in one of two ways: (1) by an internal carrier Identifier, or (2) the carrier's name, mode, and bin category. The CSV file also needs to be a specific format. In order to satisfy both of these requirements, EPA recommends two approaches:

Option A:

On the **Select Carrier(s)** screen, use the **Export Master File** button. This will write all of the current SmartWay Carriers into a CSV file in the correct format. You can then open this CSV file in Excel and delete the carriers you don't use. If you want to specify a carrier multiple times, to designate a different pathway or different internal code, you can simply copy and paste that carrier row onto a new row within Excel.

Option B:

On the **Select Carrier(s)** screen, find and select your carriers using the tool's user interface, including the Carrier Mode drop-down listbox, the Bin Category drop-down listbox, and the Available Carriers drop-down listbox. As you find each of your carriers, use the **Add Selected Carrier to the List Below** button. When you use this button, the carrier that has been selected in the Available Carriers drop-down listbox will be added to the list of Selected Carriers at the bottom of the screen. Once you have selected your carriers, use the **Export Selected Carriers** button. This will write out the carriers you selected into a CSV file with the proper format

Although EPA does not recommend it, there is also a third option, which is to create your CSV from scratch using one of your in-house systems. If you do use this approach, you should select a few carriers on the **Select Carrier(s)** screen and export them so you have a sample CSV file with the correct format. This will aid your IT staff in producing a CSV file with the correct format.

EPA recommends that you save a backup copy of the CSV file at this point.

Step 3: Populate the CSV file with carrier data from your in-house computer systems.

Open up the CSV file you created in the previous step. At the top of the file are important warnings and descriptions of the data that needs to be entered in each column. These warnings and descriptions can be deleted from your CSV, however do not change the header row which begins with the label "Carrier ID". A list of the CSV fields can also be found at the end of this User Guide, including a list of valid values.

Step 4: Validate your CSV file.

You can validate your CSV file to ensure the data and format are acceptable by using the **Import Carriers from File** button on the **Select Carrier(s)** screen. This function will conduct an initial validation of the data within your CSV file. After the validation is

complete, the Logistics Tool will display a list of any errors and warnings, which you may print out. After the validation step is complete, the Logistics Tool will ask you if you would like to continue with the data import process.

Step 5: Import your CSV file into the Logistics Tool.

Once you have completed your CSV, you will use the **Import Carriers from File** button to import this data into the tool. The Logistics Tool's **Data Import** function was designed so that you can add additional carrier data at a later date. If you anticipate adding additional carrier data in the future, you should use the **Export Selected Carriers** option so that all of the carrier data in the tool is exported to a CSV file. You should then add your additional carrier data to the exported CSV file.

Once you have imported your CSV file into the tool, you may augment, correct, or modify any of the carrier data using the Logistics Tool's user interface. If you make any changes to your carrier data from within the tool, you should export this data using the **Export Selected Carriers** button on the **Select Carrier(s)** screen.

Note: *When you perform a* ***Data Import****, all previously entered or imported carrier data in the Logistics Tool is deleted. If you need to merge carrier data from the tool with other carrier data, you can either key in the additional information into the tool, or enter it into an exported CSV file. If you chose the latter approach, you should use the* ***Export Selected Carriers*** *button to export that data, then add or copy/paste this additional carrier data into this newly exported CSV, and then re-import the updated CSV back into the Logistics Tool.*

Note: *When exporting and then re-importing your Selected Carriers, if you have also entered information on the* ***Activity Data*** *screen prior to the export, any values you may have typed into the* ***Average Density*** *and* ***Average Payload Percentage*** *popups will be lost. Any calculated values will still be retained – only the calculator inputs themselves will be deleted.*

Step 6: Enter additional data into the Logistics Tool.

In addition to carrier-specific information imported in the CSV file, the Logistics Tool will require you to enter additional information describing the **Data Source** on the **Activity Data** screen.

After importing your carrier data, please view each screen that is enabled on the data entry screens. The Logistics Tool will prompt you when data is missing or in error. Alternatively, you may select the **VALIDATE FLEET** button at the bottom of each screen, which will allow you to see all of the errors at once.

Manual Entry Method

To use this method, first select the mode of transport from which you wish to choose a carrier. Four carrier mode selections are available, including:

- All
- Rail
- Truck
- Multi-Modal
- Logistics

Note that by selecting "All", you may list and search all carriers, regardless of mode.

Next, if you select the Truck mode, you may also specify a carrier bin category. Truck bin categories include:

- TL Dry Van
- LTL Dry Van
- Refrigerated
- Flatbed
- Tanker
- Dray
- Package
- Specialized
- Mixed

Bin category selections are not currently available for other modes but may be added in the future. (Note that Multi-modal selection lists "Truck/Rail" as the bin category, by default.)

After specifying the mode (and bin category if available), a drop-down menu will allow you to select by carrier name,[3] and/or by SCAC and MCN numbers if the carrier is a trucking or logistics company. You may also type in carrier names and/or codes to find the carrier more quickly. If one or more carriers in your fleet are not SmartWay Partners, you should select the appropriate "Non-SmartWay" option provided at the top of the listing. (Non-SmartWay carriers are assumed to have performance levels equivalent to the lowest performing partners for a given mode, for calculation purposes.[4]) After the carrier is selected, click the **Add Selected Carrier to List Below** button to add them to your fleet list.

[3] In certain cases, a single search selection may require additional filtering. For example, a given carrier may have multiple SCAC's associated with its operations. In this case, if your choice has multiple SCAC's, you may still have to use the SCAC drop-down menu to select among several codes to adequately narrow your search to the appropriate carrier mode.

[4] These estimates have been developed for Truck carriers from 2010 partner submittals. Non-SmartWay Logistics and Multi-modal carriers are also assumed to have performance levels equivalent to the corresponding truck value. Currently, the Non-SmartWay Rail selection utilizes industry-average performance metrics. Please see the Technical Documentation for additional details.

Once the required data has been entered on the **Select Carrier(s)** screen, proceed to the **Activity Data** screen.

Note that either the Data Import Method or the Manual Entry Method are acceptable to SmartWay, and SmartWay places no judgment on whether data was submitted via import or manual entry. The decision is at the discretion of the user.

The User will likely need to have IT support for the data upload option. The directions for data upload must be followed exactly for the data import to work. It is recommended that if you are not an experienced computer user with a familiarity creating CSV files, that you engage your IT department for support.

3.3.2 Data Entry: Activity Data Screen

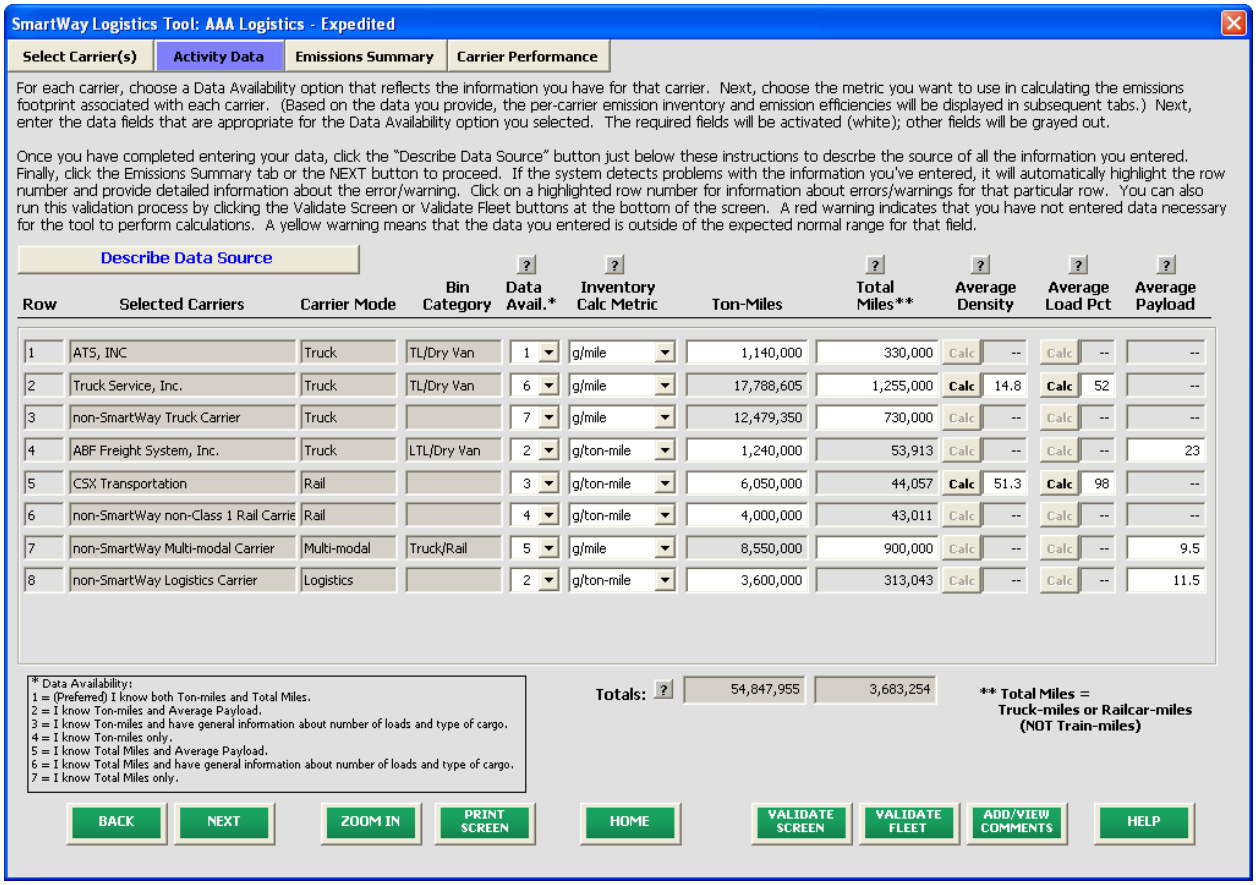

Figure 22. Data Entry– Activity Data Screen

Data reported on this screen are used to calculate your logistics fleet's transport-related mass emissions. Carriers specified in the **Select Carrier(s)** screen are automatically listed on this screen, along with their associated mode and bin category, if applicable.

The Logistics Tool calculates your emission performance based on your best available data for each of your carriers. Since your mass emissions inventory can be produced by either g/ton-mile or g/mile metrics, it is allowable for you to mix metrics by carrier. Regardless of the metric you select, the tool will calculate tons of emissions. However, in order to compare efficiencies across different carriers and/or modes, you will need all data expressed in either g/ton-mile or g/mile.

To begin entering data regarding how you use each carrier, you must first specify a **Data Availability** option. There are seven **Data Availability** options offered. If you have the necessary data, select Option 1 and provide estimates for both ton-miles and total miles. If only one of these values is known, the other value can be calculated using a combination of your average freight density, your average load percentage (e.g., 100% for truckload), and/or your average payload. For example, ton-miles combined with average payload estimates enables the estimation of total miles. Similarly, average density combined with average load percentages allows for the conversion between miles and ton-miles. Cargo density is estimated based on the commodities associated with each carrier. See the SmartWay Logistics Tool Technical Documentation for additional information on these calculations. Depending on the **Data Availability** option selected, the fields on the screen will become active (white) or remain grayed out.

Ideally, when entering information for a carrier, you should use **Data Availability** Option 1. If this is not possible, *please choose the method that utilizes the most accurate data at your disposal*. In this way the tool will utilize the most accurate data available for the ton-mile and mile comparison metrics as well as for the emissions footprint calculations.

If you know only ton-miles, then you may choose Options 2, 3 or 4. In Option 2, you will need to provide average payload, which will be used to develop a mileage estimate. In Option 3, you may include information on load fractions and the types of cargo, and the tool will calculate an average payload for you. In Option 4, SmartWay will use an average payload number based on the bin category of the carrier to estimate a miles number for you. For all of these options, the miles estimate will be paired with the carrier's g/mile efficiency factor to produce a g/mile equivalency. Although dependent on industry type and product mix, Option 2 is *generally* preferred to Option 3 in terms of data quality, while Option 3 is preferred to Option 4.

If you know only miles, then you may choose Options 5, 6 or 7. In Option 5, you will also need to provide average payload which will be used to develop a ton-miles estimate. In Option 6, you may include information on load fractions and the type of cargo, and the tool will calculate an average payload for you. In Option 7, SmartWay will use an average payload number based on the bin category of the carrier to estimate a ton-miles number for you. In all these options, the ton-miles estimate will be paired

with the carrier's g/ton-mile efficiency factor to produce a g/ton-mile equivalency. Although dependent on industry type and product mix, Option 5 is *generally* preferred to Option 6 in terms of data quality, while Option 6 is preferred to Option 7.

Finally, providing ton-mile data (Options 2, 3, and 4) is generally preferable to simple mileage data for most modes. For example, when shipping bulk commodities by rail, ton-mile estimates are often available and will result in a much more precise estimate of mass emissions (when combined with gram per ton-mile metrics for each carrier) than relying on gram per mile metrics. Ton-mile estimates are also most appropriate for LTL truck shipments, given the uncertainty in cargo volume utilization. Ton-miles are also more appropriate for heavier TL shipments. Alternatively, mileage activity measures are most appropriate for light truckload shipments. However, for all calculations, where precise estimates of weight are often unknown, and distance estimates are highly reliable, mileage activity measures may be the better metric.

After specifying the **Data Availability** option, you must then define your preferred metric (**Inventory Calculation Metric**) for calculating mass emissions for each of your carriers. Options include gram per (truck) mile, grams per railcar-mile, and gram per ton-mile (all modes). Please select the metric most appropriate for characterizing your carrier activity. You should select g/mile metrics for estimating mass emissions for lighter weight truck freight, while g/ton-mile should generally be used for all rail and heavier truck freight. When the Logistics Tool is expanded in the future to include g/volume-mile metrics as well as air and marine freight, further guidance will be provided.

Next, enter the total activity data for the carrier for the associated unit type (ton-miles, miles, or railcar-miles). You should enter the data to the nearest whole number. If you selected Option 1 (preferred), enter both miles and ton-miles for the given carrier. If you selected Option 2, you must enter ton-miles along with the estimated average payload in tons. In this case the total miles for the carrier will be back-calculated by dividing ton-miles by tons. If you selected Option 3, first enter your ton-miles. Next, you must estimate your freight density using the **Average Density Calculator**. The calculator, which is activated by clicking the appropriate **Calc** button in the Average Density column, allows you to specify the fraction of shipments that fall into various commodity groupings. Each grouping has an associated average density, expressed in pounds per cubic foot of available cargo space. The densities for a given commodity category vary for rail and truck modes, since utilized container space varies by mode.[5] **Figure 23** presents an example set of inputs for the truck density calculator.

[5] The density categories for Logistics and Multi-modal carriers are assumed to be the same as for truck carriers.

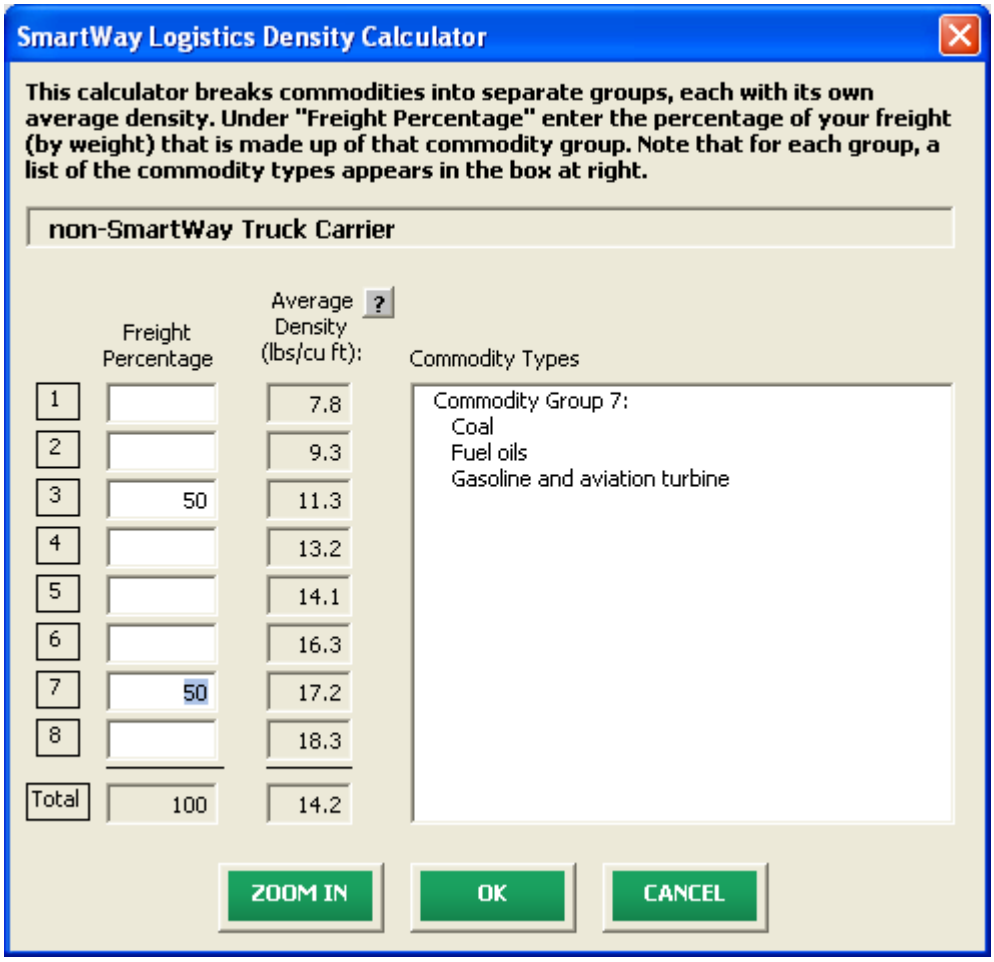

Figure 23. Example Average Density Calculator (Truck Mode)

After inputting your freight distribution data into the **Average Density Calculator**, please use the **Average Load Percent Calculator** to adjust activity estimates to the whole unit equivalent. For example, if 5,000 loads of your LTL shipments are ¼ truckload and 5,000 loads are ½ truckload, enter the corresponding load information in the **Average Load Percent Calculator** popup (see **Figure 24**). The calculator will then calculate the weighted average load (in this case 38 percent) which will be applied to the total miles estimate. If you do not convert partial shipments into whole shipments, you will be assigned the carbon impact of the entire load. Please refer to the Logistics Technical Documentation for details regarding the application of the calculator inputs.

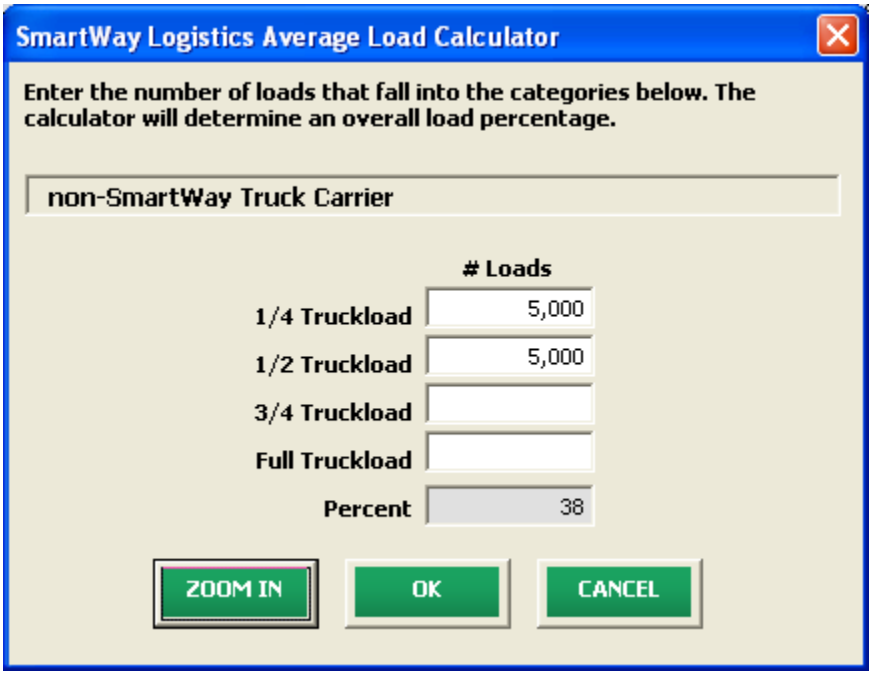

Figure 24. Example Average Load Calculator (Truck Mode)

Once the calculator data has been entered, the resulting average density and load percentage will appear on the **Activity Data** screen. The back-calculated mileage values appear in grey boxes on the screen.

If you select Data Availability Option 4, simply enter your ton-mile estimates, and a corresponding mileage estimate will be back-calculated using the carrier's average payload value, as determined from the bin category averages. This option is the least accurate of the ton-mile-based calculations, since no information is provided regarding your logistics fleet's payload profile.

If you select Data Availability Option 5, enter your total miles estimate, expressed as either truck miles (for truck, logistics, and multi-modal carriers), or railcar-miles for rail carriers. Next enter your average payload estimate in tons and ton-miles will be back-calculated for you. Similarly, selecting Option 6 requires total miles to be entered, along with payload density information and load percentages using the calculators described above. Finally, selecting Option 7 only requires entry of total miles, and ton-miles will be back-calculated using the carrier's average payload value.

The Logistics Tool also contains data validation check designed to identify missing and potentially erroneous data. Clicking the **VALIDATE SCREEN** button at the bottom of the screen will allow you to view any potential data entry errors. **Figure 25** provides an example validation screen check result.

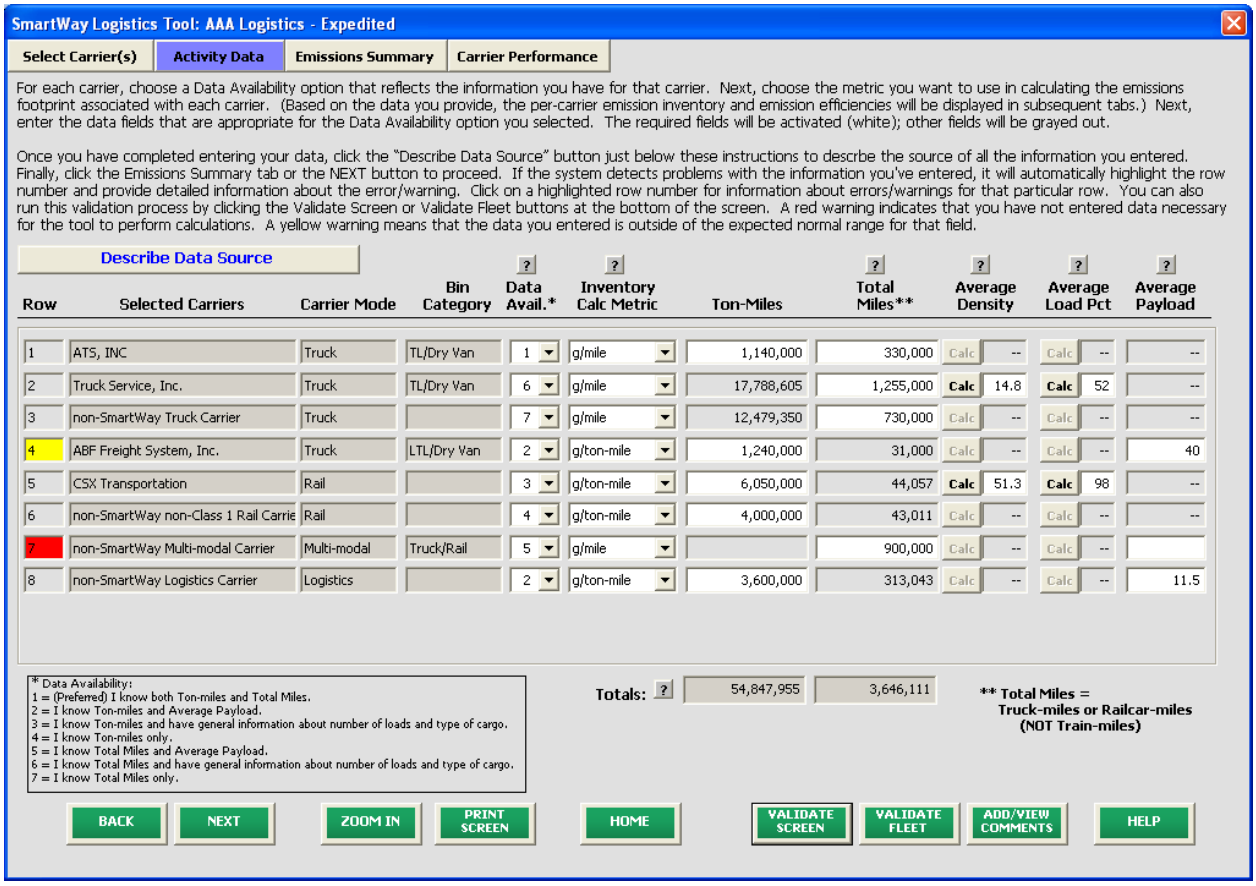

Figure 25. Example Validate Screen Check Result

The red highlighting in row 7 indicates an error. Errors must be addressed before proceeding with the rest of your data entry. Clicking on the red highlighting will display details – in this case, informing you that an **Average Payload** entry is required for Data Availability selection 5.

The yellow highlighting indicates a warning condition. Warnings do not have to be addressed before proceeding, but may indicate a **possible** data entry error. In the example above, the average payload entered, 40 tons, is greater than the validation threshold of 33.8 tons. In this case 33.8 tons corresponds to the average payload plus two times the standard deviation of the payload distribution for Class 8b truck partners. (The same upper bound payload level is used for Logistics and Multi-modal carriers as well.) Other validation messages will be presented for the following conditions:

- Average railcar payloads are greater 150 tons (warning)
- The ratio of ton-miles to miles is greater than the corresponding upper bound average payload (warning)
- Payloads are less than or equal to zero (error)

Based on the logistic fleet activity data inputs and the carrier performance data downloaded from the EPA website, weighted composite of CO_2, NOx, PM10, and PM2.5 g/mile and g/average payload ton-mile factors are calculated for each carrier, as well as total mass emissions (based on the preferred metric designated for each carrier). The fleet-specific g/mile and g/ton-mile factors, as well as total mass emissions, are shown on the **Emissions Summary** screen.[6] A full range of summary data is displayed on the **Carrier Performance** screen.

After entering the required activity data, make sure to provide a description of the data sources used to develop these estimates by clicking the **Describe Data Source** button at the top left of the screen (see **Figure 26**). You can then click on the **VALIDATE SCREEN** button at the bottom of the page. The tool will then make sure you have filled out everything properly on this screen. In addition, you will also see the **ADD/VIEW COMMENTS** and **HELP** buttons at the bottom of the page.

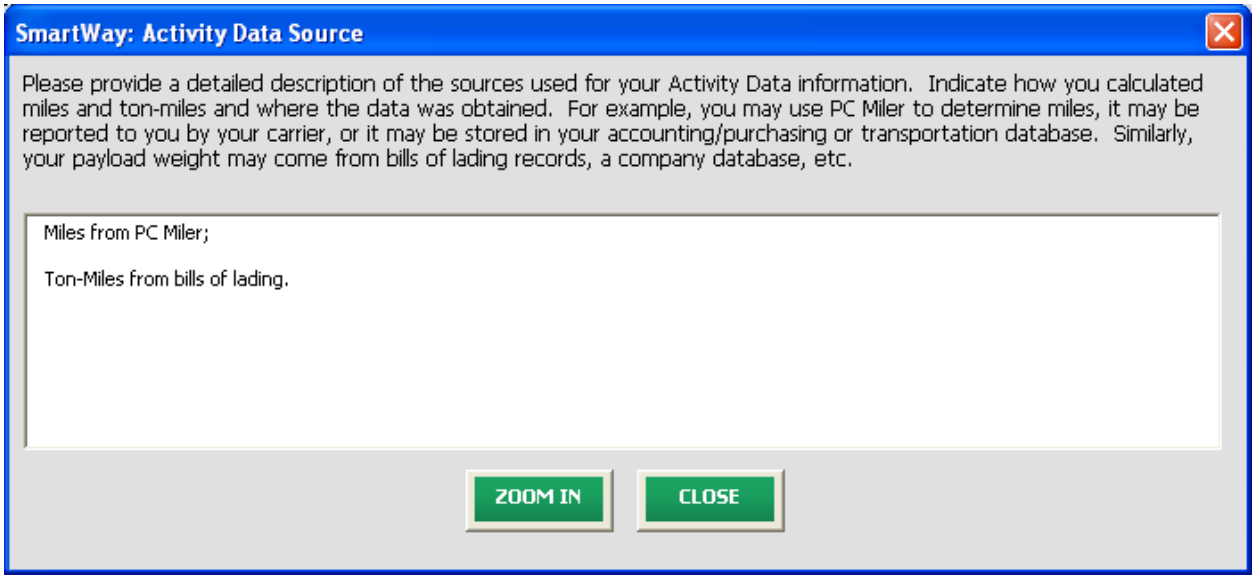

Figure 26. Example Data Source Description – Activity Data Screen

Once you finish entering your data you may view your performance on the **Emissions Summary** or **Carrier Performance** screens, or simply return to the **Home** page.

[6] The gram per mile and gram per ton-mile values indicated in the tool actually represent "bin averages" for a given truck operating category (e.g., TL Dry Van operators), indicating bin midpoints for the ranked set of all operators in this category. In this way precise performance metrics are not attributed to any given carrier.

3.3.3 *Emissions Summary Screen*

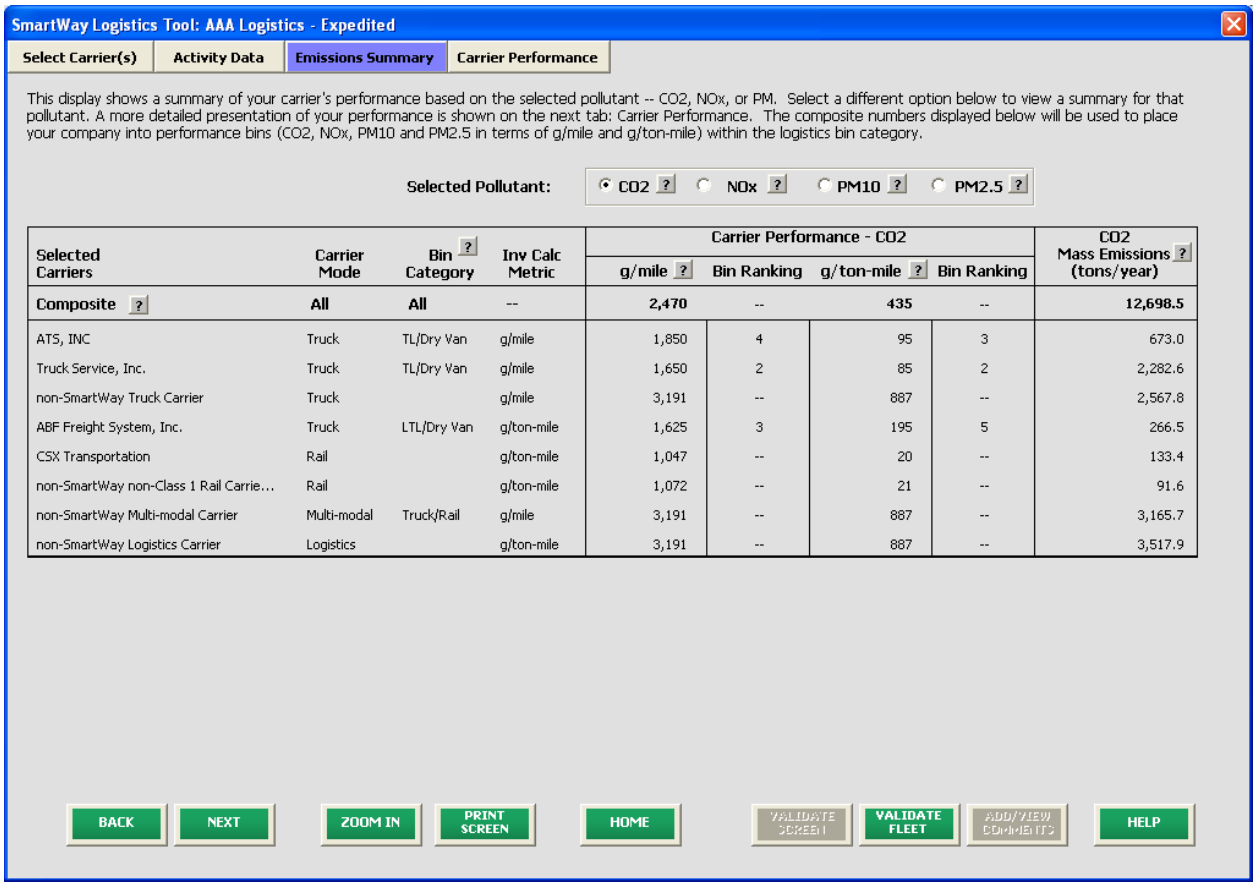

Figure 23. Emissions Summary Screen

The **Emissions Summary** screen provides a summary of emissions performance by carrier and for your logistic fleet as a whole, presented for grams per mile and grams per ton-mile. Truck Carriers will also display their bin rank. Truck carrier emission factors are determined by placing similar trucking companies in groups called "bin categories." The current categories are: truckload-dry van/container, less than truckload dryvan, refrigerated, tanker, flatbed, package delivery, dray, specialized hauler, and mixed. The fleets in each bin category are divided by performance into five roughly equal sets (bins.) The midpoint of performance for each bin represents the emission factor for all fleets in that bin. Thus, a fleet will have a bin number (ranging from 1 to 5) for each of the four pollutants and two performance metrics (8 bins in all.) Bin Rankings are currently only used for truck and logistics carriers. Rail uses actual company specific emission factors, and future air and sea modes will likely use company specific emission factors.

Mass emissions in tons per year are also calculated in the right hand column. Select the pollutant of interest using the radio buttons above the table. The **Composite** row at the top of the table provides the activity-weighted average performance metrics across

all carriers and modes. This summary, plus other detailed reports can be printed by returning to the **Home** page and selecting **View Performance Data**.

3.3.4 Carrier Performance Screen

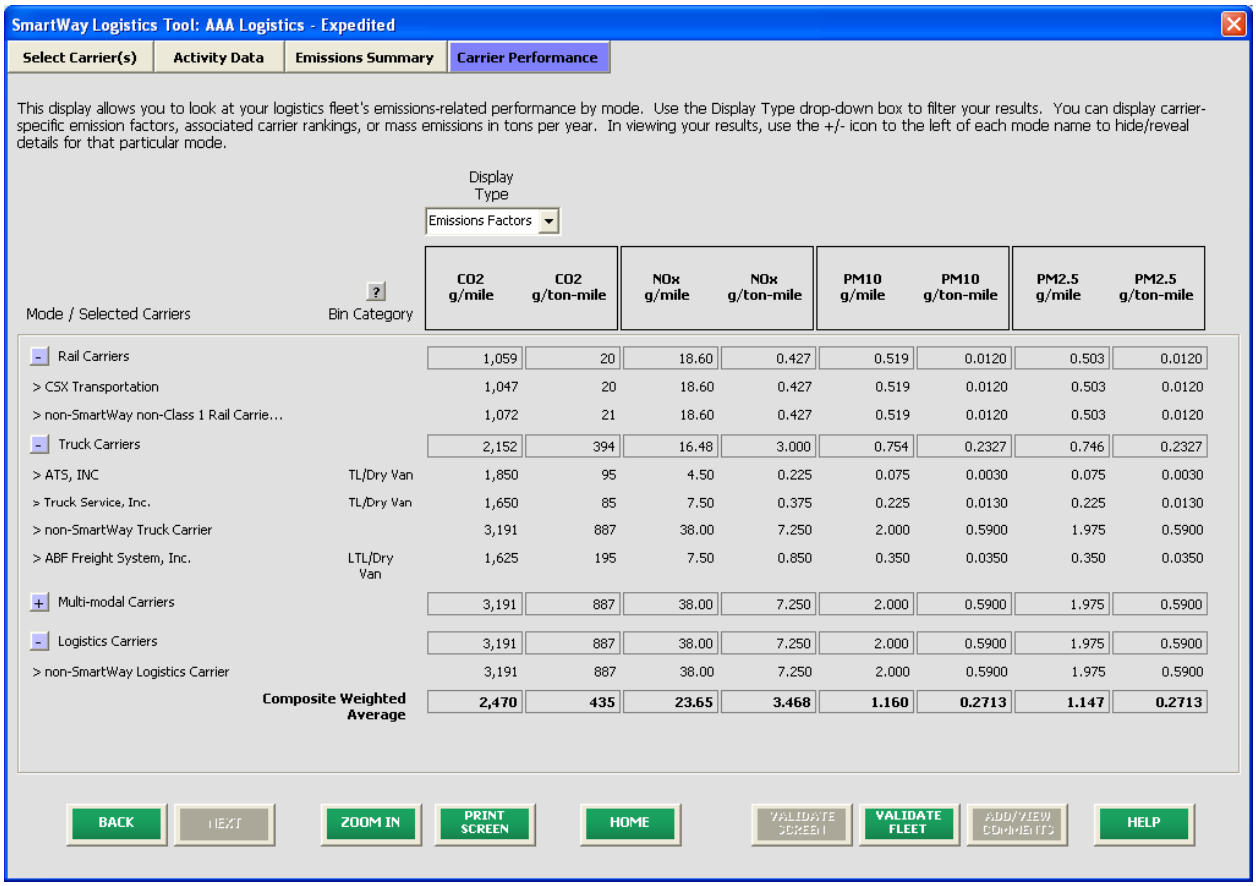

Figure 24. Carrier Performance Screen

This screen displays data at a more detailed level than the **Emissions Summary** screen. Emission factors, mass emissions, or bin rankings may be selected for display using the **Display Type** drop-down box. (Note that Bin Rankings can only be viewed for specific truck carriers, not for the mode-level summary.) You may also expand or aggregate the display rows to show carrier performance by individual carrier by clicking on the "+/-" signs to the left. Clicking on the "-" sign removes the individual carrier display.

This data, plus other detailed reports, can be printed out by returning to the **Home** page and selecting **View Performance Data**.

3.4. View Performance Data

Once back at the **HOME** screen, notice that the fleet data that you entered and validated now identifies its status as "Complete". You may now highlight the next fleet if you have another one to complete. Fill out unfinished fleet data in the same manner as before. If all fleets are marked as "Complete," you can move on to the next step, **View Reports**.[7] If one or more fleets are not marked as "Complete", review the data you entered for errors or omissions.

Figure 25. Home Screen - After Completing the Data Entry/Modification Process for First Logistics Fleet

[7] Company Characterization and Input Summary reports may be viewed before completing data entry for all companies if needed.

Once you are ready to continue, click **View Performance Data**. The following screen will appear:

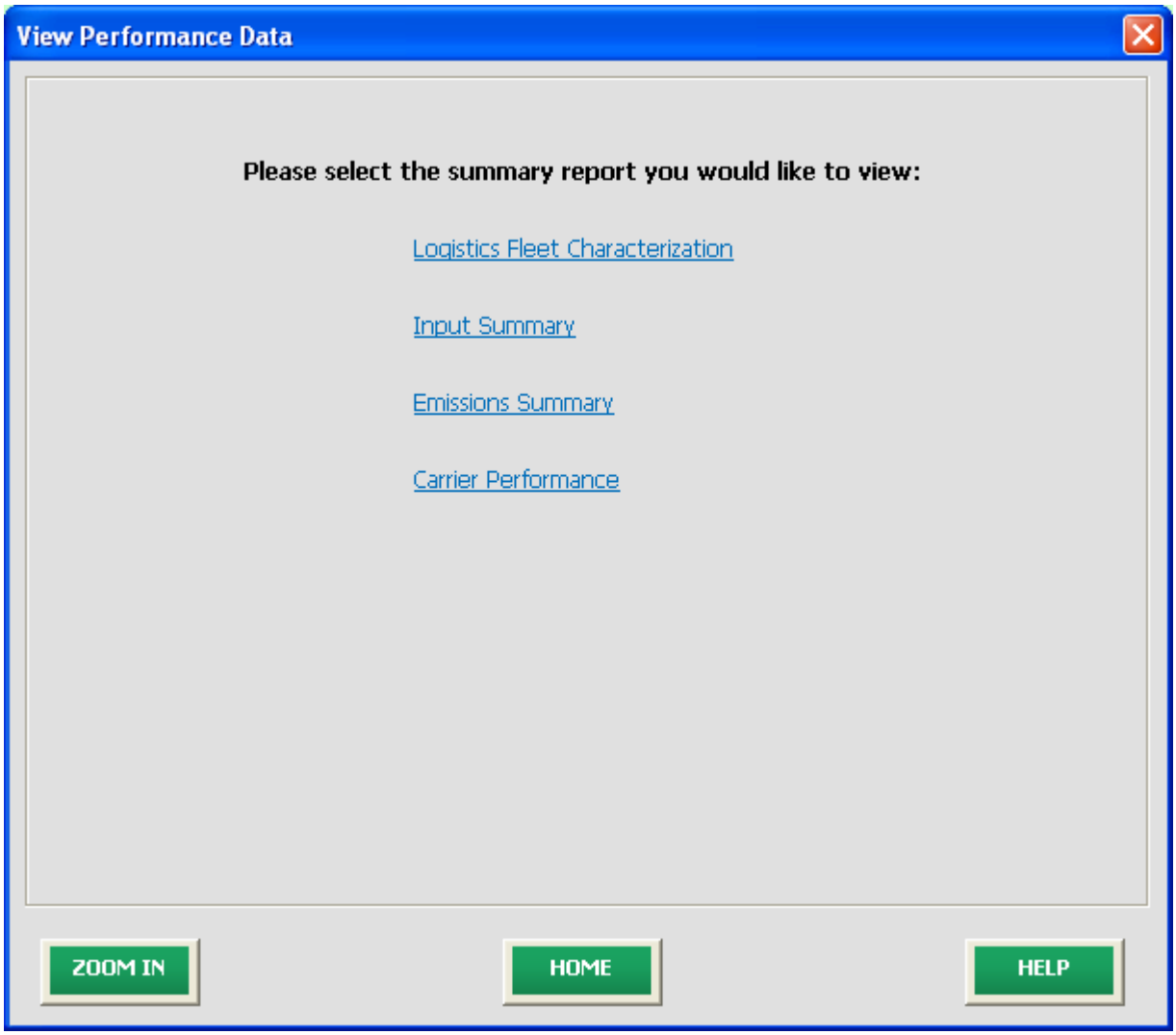

Figure 26. View Performance Data Screen

Clicking any of the **blue links** will display the indicated data. The reports provide a recap of your data inputs as well as the emissions calculations presented on the different **Data Entry** screens. Clicking on any of the summary report types will take you to a screen allowing you to preview and print your reports. The **Emissions Summary** and **Carrier Performance** reports also provide composite performance metrics and mass emissions summed across all logistics fleets. These reports will prove useful for your diagnostic and improvement efforts.

3.5. Exchanging your Data with SmartWay

Congratulations! You are now ready to send your data to EPA.

Click the **Create File to Send to EPA** link, which will create a file with the following naming convention:

PartnerName_ **Year**_Logistics_2.0.V0.xls

where **PartnerName** is the name entered in Step 1 on the **HOME** screen, and **Year** indicates the year for which you are submitting your data.

The system will display a message indicating that an Excel file will be created with your company's name as part of the file name. The file will be saved to the same folder where the tool itself is currently saved. You will need to locate the file and attach it in an e-mail to your Partner Account Manager (PAM).

NOTE: DO NOT ZIP the File. Send it to EPA as a normal file attached in an e-mail. EPA security will not allow zipped files through the EPA firewall.

The system will first display a message asking you to confirm your decision to save a copy of your data on your hard drive (**Figure 27**).

Figure 27. Data Saving Confirmation

Upon clicking **OK**, another message will appear indicating the name and location of the newly created file (see **Figure 28**). Make note of where the file is located, since the Excel file will close, and you will need to locate the file and attach it in an e-mail to your Partner Account Manager (PAM). Follow the instructions to finalize your file submittal.

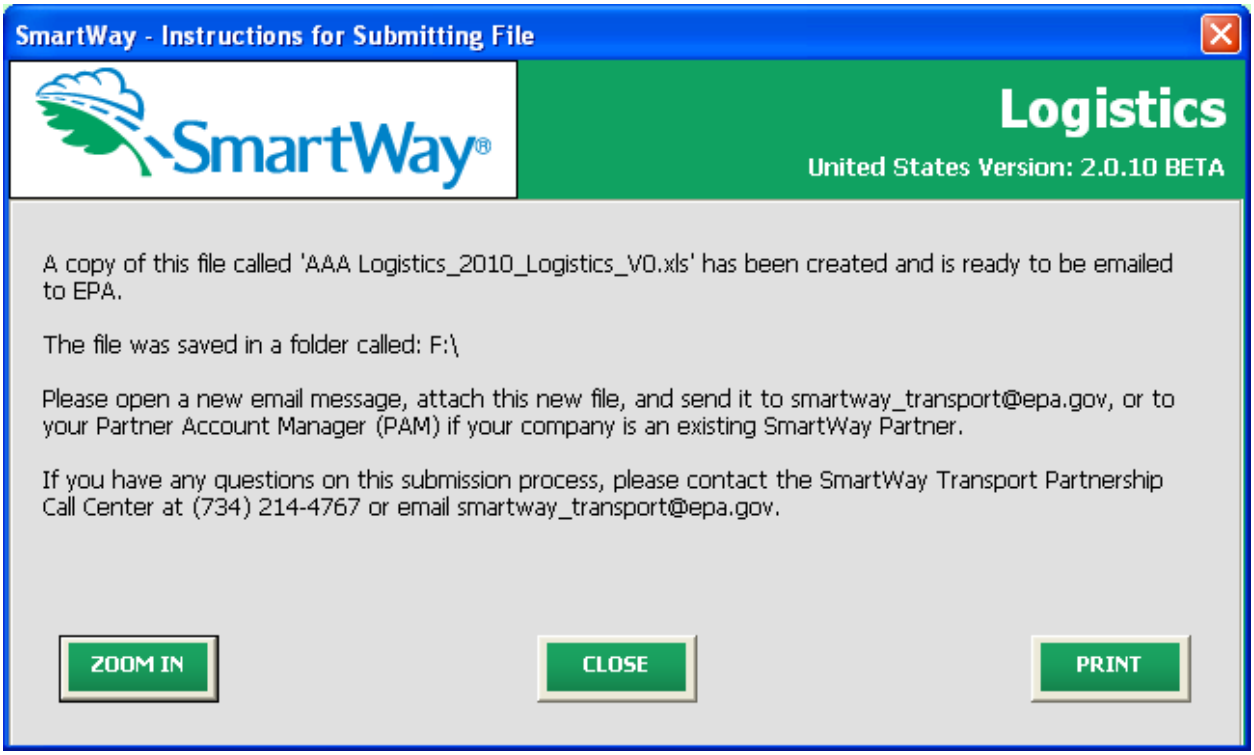

Figure 28. Instructions for Submitting File to EPA

If you have any comments on the Logistics Tool and/or User Guide, please submit these with your data in a separate document.

4. Troubleshooting

Although the revised SmartWay Tools have been tested extensively, you may encounter errors. Intermittent errors have been encountered when opening the tools directly from an e-mail rather than from a drive, or when multiple Excel files are open simultaneously. If you encounter an error during use of the tool, please try restarting it directly from a disk drive, with all other Excel files closed. In addition, make sure that your computer is using a system and application version validated for use with the SmartWay 2011 Tools (XP and Vista operating systems, and Excel Office 2003 and 2007.)

Note that some users have experienced problems when re-opening the tool without closing Excel. It is recommended that you close Excel before re-opening this tool, which could result in a loss of data in other open Excel workbooks.

If you continue to encounter problems, please make a screen capture of the error message, and save the data at that point. (You can make a screen capture by pressing Alt-Prt Scr, and then pasting the image into a document such as MS Word.) Then send the screenshot, along with the saved data to your Partner Account Manager for further assistance.

Appendix: Data Field Details for Carrier File Export/Import Option

The following provides additional information to assist in the preparation and import of Carrier CSV files.

Bin Category – The operation type category used for ranking carriers (e.g., TL Dry Van, Dray, etc.). Carriers are grouped by these categories to ensure an "apples to apples" comparison. Additional bin categories will be added later for Logistics and other modes. The emissions factors associated with truck carriers are the midpoint value for their bin.

Emission Factors – Emissions factors have long been the fundamental tool in developing national, regional, state, and local emissions inventories for air quality management decisions and in developing emissions control strategies. More recently, emissions factors have been applied in determining site-specific applicability and emissions limitations in operating permits by federal, state, local, and tribal agencies, consultants, and industry.

EPA's SmartWay Database – EPA maintains a Database containing all of the SmartWay partner information. This database is used to create the SmartWayCarrierData file.

MCN - The Standard Carrier Alpha Code (SCAC) is a unique two-to-four-letter code used to identify transportation companies. SCACs are assigned by the National Motor Freight Traffic Association, Inc., (NMFTA). If you cannot remember your SCAC(s), please contact NMFTA before proceeding. You can find NMFTA contact information at http://www.nmfta.org/Pages/ContactUs.aspx.

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CSV Fields:

Carrier ID: this is an internal identifier that can be used to identify your carriers. This number originates from the SmartWay Database. A negative number identifies the carrier as a non-SmartWay carrier. If you created your CSV file using one of the two Export buttons on the Select Carriers screen, you should not change these values. If you are merging your carrier data with the SmartWay carrier data using the carrier name, carrier mode, and carrier bin category, you do not need to specify this internal ID field.

Carrier Name: this is the name of the carrier. If you are using the internal Carrier ID field to merge your data with the SmartWay data, you do not need to specify this field. If you are using this field to merge the data together, the names must be an exact match,

but the names are not case sensitive. If you created your CSV file using one of the two Export buttons on the Select Carriers screen, you should not change these values. Mode: this is the mode of the carrier. This field is required and must be an exact match if you are using carrier name, carrier mode, and bin category to merge the SmartWay data with your carrier data. Valid values are “Truck”, “Rail”, “Multi-modal”, and “Logistics”. If you created your CSV file using one of the two Export buttons on the Select Carriers screen, you should not change these values.

Bin Category: this is the SmartWay bin category for the carrier. For more information on what a Bin Category is, please see the appendix. If you created your CSV file using one of the two Export buttons on the Select Carriers screen, you should not change these values. Valid values for Truck carriers are TL/Dry Van, LTL/Dry Van, Reefer, Flatbed, Tanker, Dray, and Package. The only valid value for Multi-modal carriers is Truck/Rail. Rail carriers and Logistics carriers do not have bin categories.

SCAC: This is a truck carrier’s SCAC code. This is an optional field you can use to visually determine if a SmartWay carrier is one of the carriers you use. This field is not currently used to merge SmartWay data with your carrier data. If you created your CSV file using one of the two Export buttons on the Select Carriers screen, you should not change these values.

MCN: This is a truck carrier’s MCN number. This is an optional field you can use to visually determine if a SmartWay carrier is one of the carriers you use. This field is not currently used to merge SmartWay data with your carrier data. If you created your CSV file using one of the two Export buttons on the Select Carriers screen, you should not change these values.

Non-SmartWay Carriers – this is a required field for non-SmartWay carriers. You can either enter the number in the CSV file or enter it later on in the ST user interface. If you enter the number in the CSV file, it must be an integer between 1 and 99,999. If you have selected more than one entry for "Non-SmartWay Carrier" for a given mode, make sure to avoid double-counting these carriers

Data Availability – This is an optional integer field whose valid values are 1 to 7. The Data Availability option entered/selected for a carrier identifies which carrier activity data you have available. The data your enter in your CSV file for Ton Miles, Total Miles, Average Density, Average Load pct, and Average Payload should be consistent with the carrier’s Data Availability. If you do not specify a Data Availability option, it will default to one.

The seven Data Availability options are:

1 = (Preferred) I know both Ton-miles and Total Miles.
2 = I know Ton-miles and Average Payload.
3 = I know Ton-miles and have general information about number of loads and type of cargo.

4 = I know Ton-miles only.
5 = I know Total Miles and Average Payload.
6 = I know Total Miles and have general information about number of loads and type of cargo.
7 = I know Total Miles only.

Calc Metric – This is a required field. In general, there are three valid values, but some of these values are only available for certain Mode and Data Availability options. The three valid values are g/mile, g/ton-mile, and g/railcar-mile. This field specifies the method for calculating each carrier's emission footprint. In making your selection, consider the most appropriate measure for the carrier's operation type. In general, ton-miles are good for rail, multi-modal and logistics companies as well as heavier truck loads (roughly above 10 tons), while g/mile is better for trucks with lighter payloads.

Railcar-miles are also an available option for the rail mode, although ton-miles are preferred. Also, g/mile may be a more reliable metric for tracking TL operations, while g/ton-mile is probably more appropriate for LTL operations.

Ton Miles – Depending on your Data Availability option, this field may be required or ignored. The Ton-Miles field is an integer that must not exceed 999,999,999,999.

Total Miles – Depending on your Data Availability option, this field may be required or ignored. When entered, this field will contain the total miles per year attributed to each truck and rail carrier. The tool assumes that miles entered for truck carriers correspond to (full) truckload-equivalent miles. Rail miles correspond to truckload equivalent railcar miles. Please see the Logistics Tool Technical Documentation for details regarding the calculation of truckload-equivalents for railcars. The Total Miles field is an integer that must not exceed 999,999,999,999.

Average Density – Depending on your Data Availability option, this field may be required or ignored. This field is used to calculate ton-miles and/or total miles, accounting for shipper-specific freight densities. The density calculator must be used for Data Availability options 3 and 6. The Average Density field is a numeric field greater than zero with up to one decimal place.

Average Load Pct – Depending on your Data Availability option, this field may be required or ignored. Use the Average Load Percent calculator to determine what fraction of your truck and rail carrier's cargo space is used to ship your freight. The Load Percent calculator must be used for Data Availability options 3 and 6. Enter the load information as requested. The resulting fractions (shown on the Activity Data screen) are multiplied directly by Total Miles to scale carrier mileage. The Average Load Pct field is an integer field that must be between 1 and 100.

Average Payload – Depending on your Data Availability option, this field may be required or ignored. Enter payload (in tons) representing the average cargo weight per

loaded trip. The Average Payload field is a numeric field that must be greater than zero. The total number of digits, including the decimal point, must not exceed 5 digits.